

Title Page

BC Geological Survey Assessment Report 38811



Ministry of Energy, Mines & Petroleum Resources
Mining & Minerals Division
BC Geological Survey



Assessment Report
Title Page and Summary

TYPE OF REPORT [type of survey(s)]: TECHNICAL - PROSPECTING

TOTAL COST: \$2,696.80

AUTHOR(S): KEN ELLERBECK

SIGNATURE(S): 

NOTICE OF WORK PERMIT NUMBER(S)/DATE(S): _____

YEAR OF WORK: 2019

STATEMENT OF WORK - CASH PAYMENTS EVENT NUMBER(S)/DATE(S): 5769774 JANUARY 7, 2020

PROPERTY NAME: BERTHA

CLAIM NAME(S) (on which the work was done): DES TENURE 1064715

COMMODITIES SOUGHT: Cu Au Ag

MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN: 092ISE021,

MINING DIVISION: KAMLOOPS

NTS/BCGS: 092I047,

LATITUDE: 50 ° 25 ' 42.81 " LONGITUDE: -120 ° 38 ' 30.43 " (at centre of work)

OWNER(S):

1) KEN ELLERBECK

2) _____

MAILING ADDRESS:

255 BATTLE STREET WEST KAMLOOPS BC V2C 1G8

OPERATOR(S) [who paid for the work]:

1) KEN ELLERBECK

2) _____

MAILING ADDRESS:

255 BATTLE STREET WEST KAMLOOPS BC V2C 1G8

PROPERTY GEOLOGY KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude):

Amygdaloidal Andesite, Lapilli Tuff, Amygdaloidal Basalt, Volcaniclastic Breccia, Felsic Dike, Dioritic Sill, Andesitic Sill,

Quartz Feldspar Porphyry, Chlorite Mica Schist, Quartz Mariposite Carbonate Rock, Quartz Feldspar Porphyry,

Upper Triassic Nicola, Pyrite, Chalcopryrite, Sphalerite-Vein Hydrothermal, Epigenetic, Cuprite, Malachite, Azurite,

Chalcopryrite, Pyrite, Galena, Sphalerite, Carbonate, Mariposite, Chlorite, Epidote, Hematite, Pyrite, Chalcopryrite, Pyrite

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS: _____

265, 3668, 3763, 3764, 14959, 15060, 17337, 18048, 36058, 4041, 4042, 17337, *18048, 22346, 24862, *25405, *28815

Next Page

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
GEOLOGICAL (scale, area)			
Ground, mapping	_____	_____	_____
Photo interpretation	_____	_____	_____
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic	_____	_____	_____
Electromagnetic	_____	_____	_____
Induced Polarization	_____	_____	_____
Radiometric	_____	_____	_____
Seismic	_____	_____	_____
Other	_____	_____	_____
Airborne			

GEOCHEMICAL (number of samples analysed for...)			
Soil	_____	_____	_____
Silt	_____	_____	_____
Rock	_____	_____	_____
Other	_____	_____	_____
DRILLING (total metres; number of holes, size)			
Core	_____	_____	_____
Non-core	_____	_____	_____
RELATED TECHNICAL			
Sampling/assaying	_____	_____	_____
Petrographic	_____	_____	_____
Mineralographic	_____	_____	_____
Metallurgic	_____	_____	_____
PROSPECTING (scale, area)	1000m X 1000m	DES TENURE 1064715	\$2,696.80
PREPARATORY / PHYSICAL			
Line/grid (kilometres)	_____	_____	_____
Topographic/Photogrammetric (scale, area)	_____	_____	_____
Legal surveys (scale, area)	_____	_____	_____
Road, local access (kilometres)/trail	_____	_____	_____
Trench (metres)	_____	_____	_____
Underground dev. (metres)	_____	_____	_____
Other	_____	_____	_____
TOTAL COST:			\$2,696.80

KEN ELLERBECK

(Owner & Operator)

TECHNICAL EXPLORATION REPORT

(Event 5769774)

on

PROSPECTING and EXPLORING

Work done on

Tenures 1064715

of the 9 Claim

BERTHA CLAIM GROUP

Kamloops Mining Division
BCGS Maps 0921047

Centre of Work
UTM 10 0667407E 5588938N

AUTHOR KEN ELLERBECK, PMP

REPORT SUBMITTED January 26, 2020

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2. Introduction

2.1 Purpose

In July 2019 a prospecting program was completed on Tenures **1064715** of the nine (9) claim BERTHA Claim Group. The purpose of the program was to locate, if possible, geological features (typical copper, gold, silver bearing structures) similar to those reported to be found within and near the BERTHA Claim Group, and to prospect for unidentified outcrops and showings of significance. Information for this report was obtained from sources cited under Selected References and from a property examination made on July 13, 2019.

2.2 Access and Location

The property is located 9 km. east of Logan Lake, BC and 40 km. south of Kamloops, BC. Access is via Coquihalla Highway south from Kamloops, BC to Logan Lake highway, then southeast on the Surrey lake road for 5 km. A network of gravel and dirt roads give access to most areas of the claims. Paved roads leading to the claims include the Coquihalla Highway and the Logan Lake-Kamloops highway that passes along the northern boundary of the property. The gravel Surrey Lake Road passes near the property. Old four-wheel drive logging roads provide additional access on the property.

PHYSIOGRAPHY

The property is located in the Interior Plateau of southern British Columbia. Topography is gentle to steep and elevation varies from 1180 to 1300 metres above sea level. Many creeks drain the project area and numerous swamps and meadows are found along the creeks. A number of Lakes are also located within the property boundary. Snowfall is not excessive and water is available from the lakes, creeks and swamps. Vegetation consists of swamps, open grassy meadows and forest-covered areas. The forested areas vary from aspen and spruce to jack pine and fir. Logan Lake, Kamloops and Merritt, BC, all historic mining centers, are a source of experienced and reliable exploration and mining personnel and mining related equipment.

2.3 Property Description

The BERTHA Claim Group was acquired by online staking and by acquisition by the Author and Current Owner: November 2, 2015 – Tenures 1039697, 1029713, and 1049929 February 10, 2017. Tenure 1064715 was located November 26, 2018 and 1064900 was located December 4, 2018. 1069575 was located July 10, 2019, 1064406 was located November 10, 2018 and 1067470 was located March 27, 2019. Tenure 1066816 was purchased from Others.

Current “Good Until” dates are shown. Good to Dates assume acceptance of the Assessment Work contained in this report.

Table I Tenure List

<u>Tenure Number</u>	<u>Type</u>	<u>Claim Name</u>	<u>Good Until</u>	<u>Area (ha)</u>
<u>1039697</u>	Mineral	MEADOW-PLUG	20210413	123.4801
<u>1039713</u>	Mineral	PLUG IT	20210413	82.3091
<u>1049929</u>	Mineral	PLUG NORTH	20210413	61.7282
<u>1064715</u>	Mineral	DES	20210413	164.6966
<u>1064900</u>	Mineral	DES-PLUG	20210413	205.7844
<u>1069575</u>	Mineral	BERTHA-DES	20210413	123.5
<u>1064406</u>	Mineral	RHYOLITE HOMFRAY	20210413	411.49
<u>1066816</u>	Mineral		20210413	226.38
<u>1067470</u>	Mineral	HELLO MOLLY	20210413	61.75

Figure 1 LOCATION MAP BERTHA CLAIM GROUP

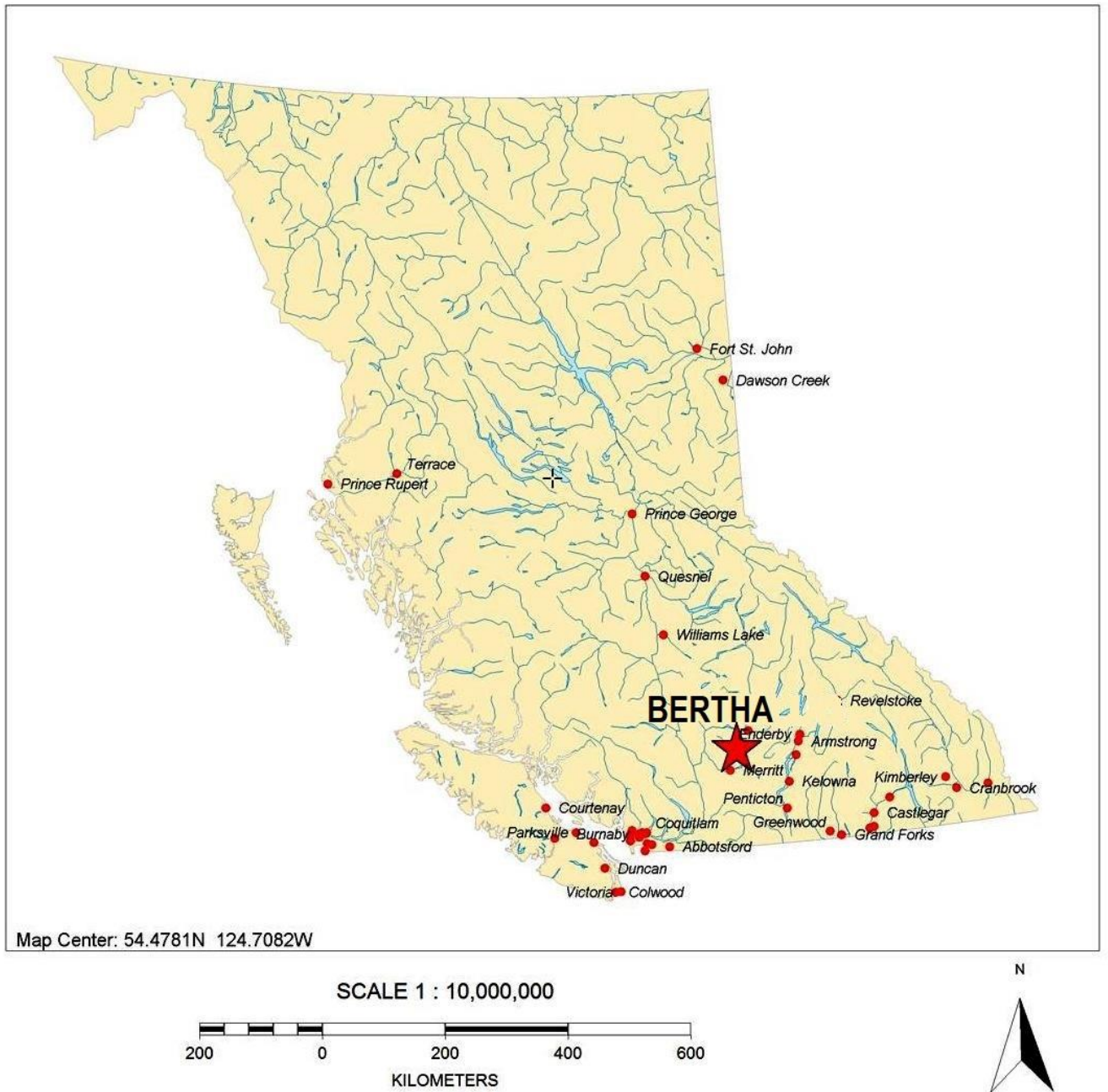


Figure 2 CLAIM LOCATION MAP BERTHA

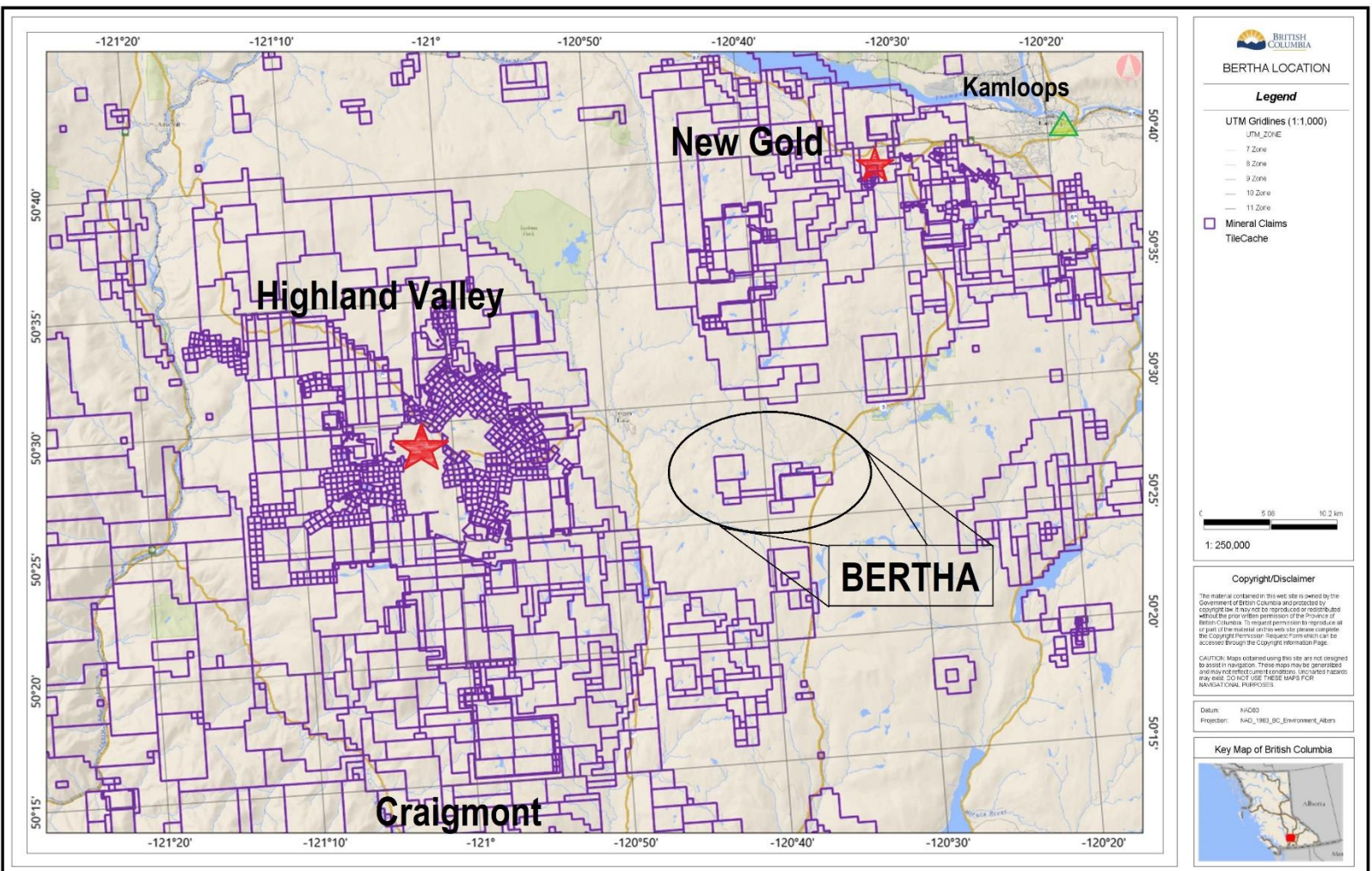


Figure 3 REGIONAL LOCATION MAP



Google earth



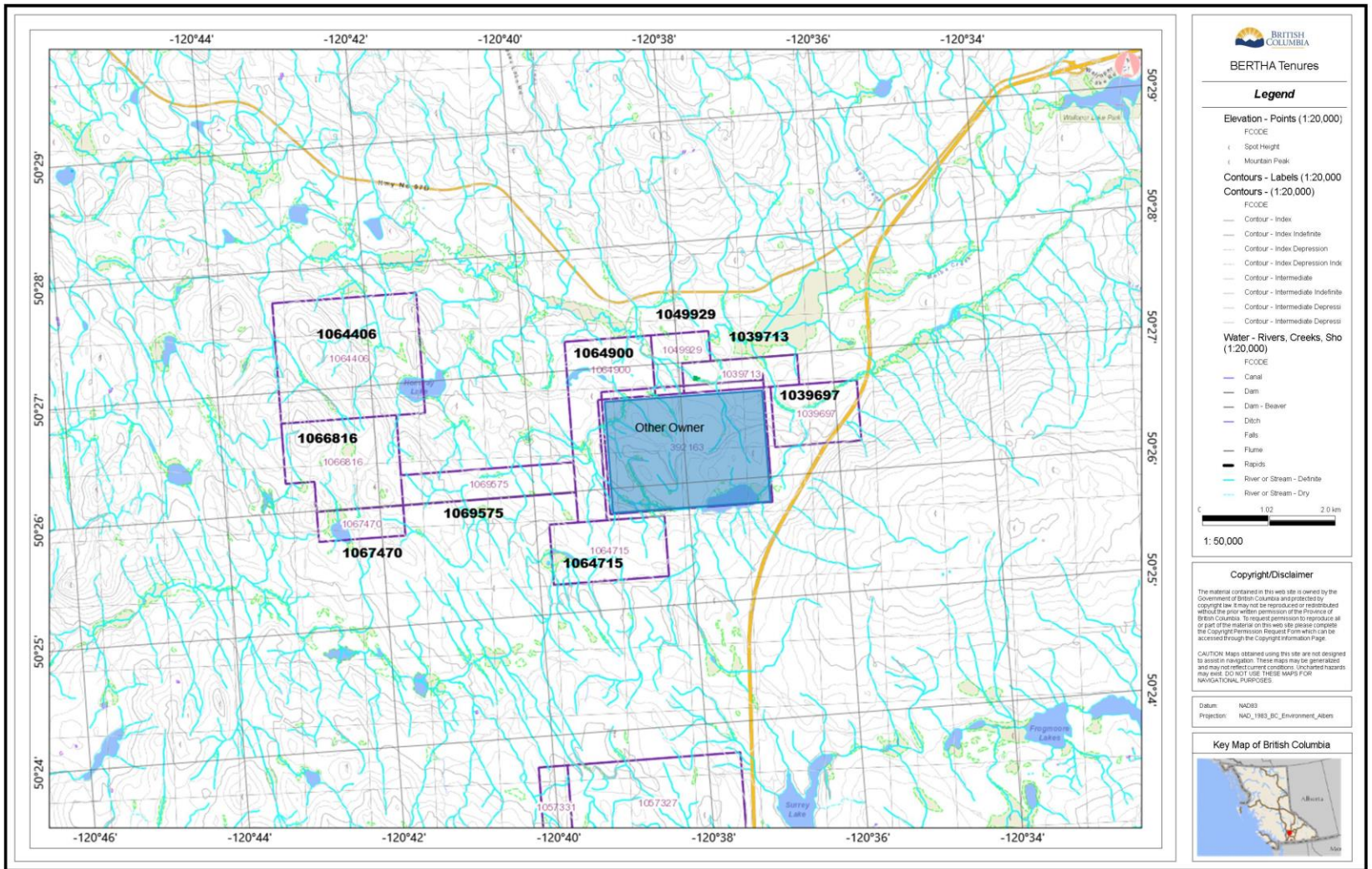
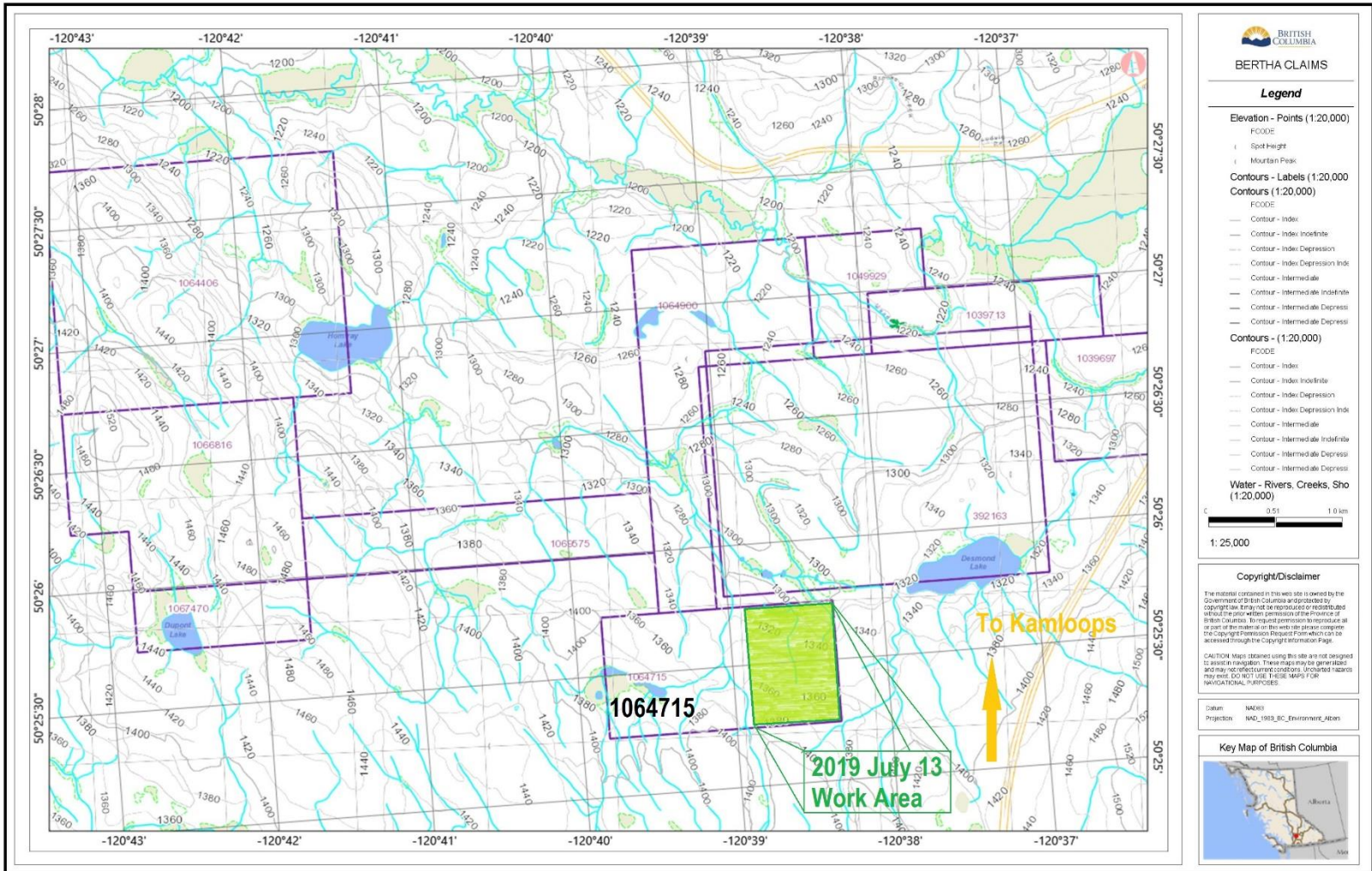


Figure 4 CLAIM MAP AND INDEX MAP



BRITISH COLUMBIA
BERTHA CLAIMS

Legend

Elevation - Points (1:20,000)
 FCODE
 Spot Height
 Mountain Peak

Contours - Labels (1:20,000)
 FCODE
 Contour - Index
 Contour - Index Indefinite
 Contour - Index Depression
 Contour - Index Depression Ind
 Contour - Intermediate
 Contour - Intermediate Indefinite
 Contour - Intermediate Depression
 Contour - Intermediate Depression

Contours - (1:20,000)
 FCODE
 Contour - Index
 Contour - Index Indefinite
 Contour - Index Depression
 Contour - Index Depression Ind
 Contour - Intermediate
 Contour - Intermediate Indefinite
 Contour - Intermediate Depression
 Contour - Intermediate Depression

Water - Rivers, Creeks, Sho (1:20,000)
 FCODE

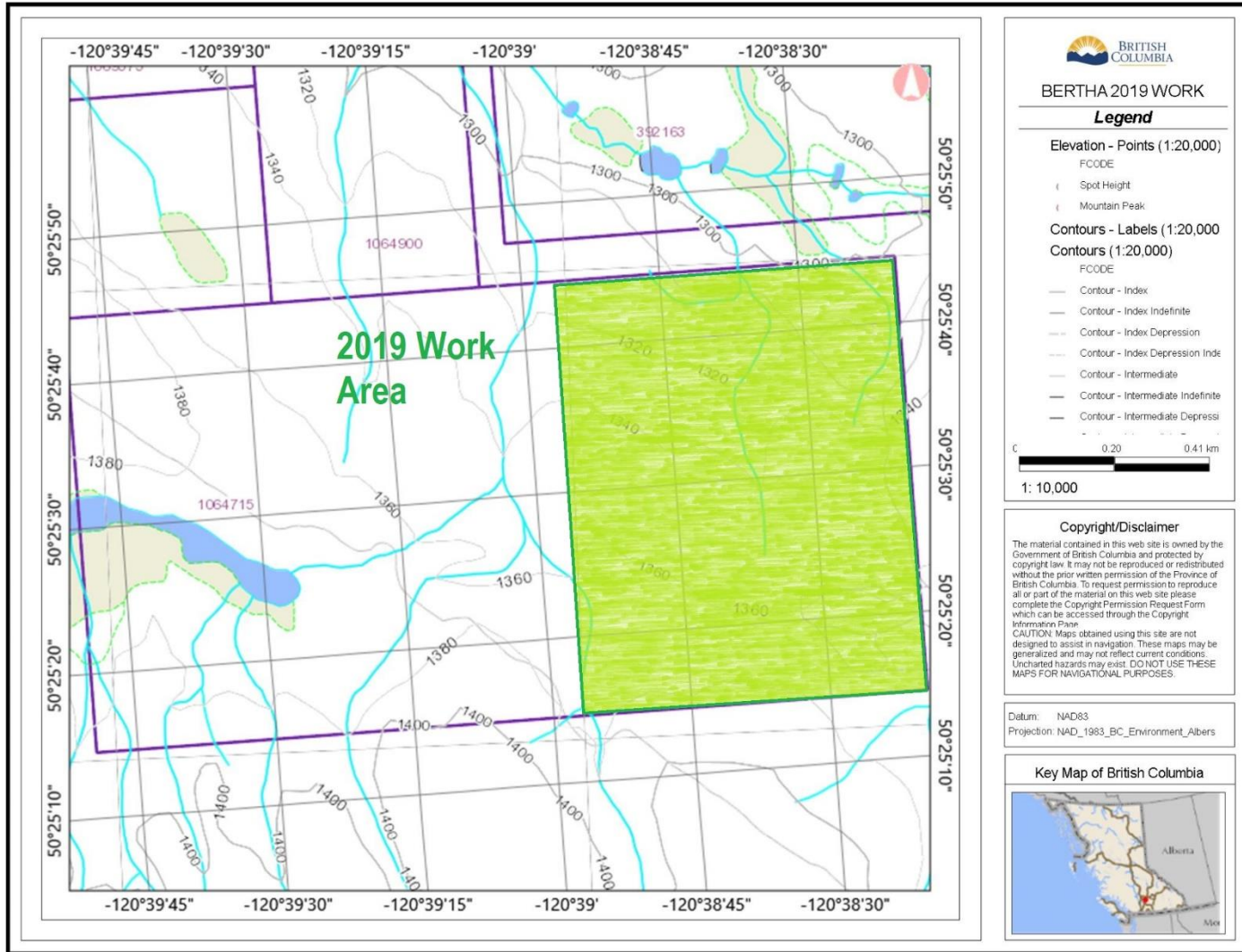
Scale: 0 0.5 1.0 km
 1: 25,000

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Datum: NAD83
 Projection: NAD_1983_BC_Environment_Areas

Key Map of British Columbia

Figure 4 continued



2.4 History

Exploration by others on land in and near the current BERTHA Claim Group has been reported. Current tenures encompass some of the work reported.

Current BERTHA Claim Group tenures include the Rhyolite, JHC, Bertha, DES, Plug and Meadow showings and workings historically reported.

The BERTHA project area is located in the Intermontane Belt of the Canadian Cordillera that is underlain by Triassic volcanic and sedimentary rocks of the Nicola Group. The Nicola Group is a complex combination of volcanic and sedimentary rocks. A variety of igneous rocks intrude the Nicola Group complex. The district is host to the Highland Valley copper mines, in Logan Lake (Teck-Cominco), the Afton and New Afton mine, in Kamloops (Teck-Cominco and New Gold) and the historic Craigmont mine, in Merritt (Placer Development).

*“History” From: Sookochoff Consultants Inc. for KEN ELLERBECK
TECHNICAL REPORT ON THE BERTHA PROPERTY, KAMLOOPS MINING DISTRICT,
BRITISH COLUMBIA, CANADA. NI 43-101 Report,
Author: Laurence Sookochoff, Peng., December 24, 2019;*

*Accessibility, Climate, Local Resources, Infrastructure and Physiography (cont'd)***Infrastructure (cont'd)**

- Airport: 7 daily & 8 weekends flights to Vancouver, 4 daily & 8 weekends flights to Calgary, daily & 2 weekends flights to Edmonton and 2 weekly & 1 weekend flight to Prince George.
- Central location to all major centres in B.C.
- Located at the intersection of Western Canada's four major highways.
- One of only two cities in Canada serviced by both national railways (CN Rail and CP Rail).
- Over 52 trucking and wide transport companies servicing North America based in Kamloops.

Kamloops is the natural trade and distribution hub in the southern BC interior, a financial, travel, and cultural focus, and the administrative centre for the Thompson-Nicola regional district.

5.6 Physiography

The Bertha Property covers gentle to moderate forested slopes with localized logged areas. Elevations range from 1,240 m in the northeast to 1,460 m in the southwest.

6.0 HISTORY**6.1 History: Kamloops Area**

Mineral exploration and mining is a \$6 billion industry in British Columbia and has been a regional economic strength in Kamloops for decades. There are a number of metal and mineral mines, as well as industrial mineral operations, located in the Kamloops area.

With a rich mining history going back over 100 years, Kamloops has skilled mining personnel, mining consultants, assay labs, and mining suppliers ready to facilitate mining exploration and active mining. This significant concentration has resulted in a cluster of industries that have located here to support the mining operations (<http://venturekamloops.com/why-kamloops/industries/mining>).

6.2 History: Bertha Property

The history of exploration within ground covered by the Bertha property is set out in the following tables. The information is taken from the referenced Assessment Reports.

6.3 History on ground presently covered by the Bertha property

Table 3. Historic claims/property, expenditures to current Tenures

Year	AR Reference	Historic Names of Claims/Property	Current Tenure Location	Cost	A-Apportioned E-Estimated
1888		Bertha Molly	1064406		
1958	228	Lucky Jim/Lucky Jim	1064406	435.00	
1958	234	Sunshine/Sunshine	1064406	200.00	E
1959	265		1066816		
1959	266		1064406	255.00	A
1959	18048		1064406	2,000.00	E
1972	4041	Plug / Plug	1039713	3,203.42	
1972	4042	Plug / Plug	1039713	6,300.00	
1972	4057	DES / Des	1064715	40,000.00	A

Table 3. Historic claims/property, expenditures to current Tenures (cont'd)

1978	7268	R / Homfray	1064406	3,440.00	
1980	8032	DES / Des	1064715	1,600.00	
1980	8397	R / R	1064406	4,538.00	
1981	9854	DES / Des	1064715	3,000.00	A
1982	10551	NADA / Nada	1064900	5,000.00	A
1984	12287	KLARA / Klara	1064715	4,000.00	A
1986	14959	WRT	1066816	5,515.00	A
1986	15060	WRT	1064406	4,000.00	A
1987	16189	Oly	1064406	1,032.00	
1987	17070	Des / Des	1064715	6,550.00	
1988	17337	Wrt / Wrt	1039713	13,385.08	A
1988	17849	Oly2 / Oly	1064406	2,412.50	
1988	18048.	WRT /WRT	1069575	10,000.00	A
1989	19140	Des /Des	1064175	130,986.15	
1992	22346	JB / Plug	1039713	3,486.42	
1992	22366	LC , Hom / Bertha		4,455.00	
1996	24862	S / Plug	103697	111,610.81	
1997	25405	S / Plug	103697	62,067.20	
2005	28671	Katrina / Katrina	1066816	2,500.00	
2007	No AR	Katrina / Katrina	1066816	3,457.00	
2007	29034	Mike / Mike	1066816	2,500.00	
2007	29495	Mike / Mike	1066816	4,600.00	
2008	No AR	Katrina / Katrina	1066816	2,675.00	
2009	30550	514098 / Hom	1069575	5,000.00	A
2016	35735	Mike / Bertha	1064406	3,624.60	
2015	35772	Plug Plug	1039713, 1039697	3,627.95	
2018	36958	679143 . Bertha	1064406	6,500.00	
2017	37206	PLUG NORTH / Plug	1039713	2,845.95	
2019	38178	1064406 / Rhyolite	1064406	2,660.20	
2019	38305	1066816 / Rhyolite	1066816	2,712.95	
2019	38307	1064715 / Des-Plug	1064715	2,703.45	
Total Expenditure				461,254.08	

Table 4. Summary of exploration history and exploration results

Year Report Author	Owner (1) Operator (2)	Exploration type, area, amount, quantity	Results	Reference Assessment Report #
1888	Meadow Creek Mines (1)	120 sacks of copper ore prepared for shipment. 75 foot shaft of unknown age,		(1888 MMAR)
1958 McBeath	Vanex Minerals Ltd.	Geophysical: 9.0 km Magnetic	No anomalies	228
1958 McBeath	Vanex Minerals Ltd.	Geophysical: 9.0 km Magnetic	No anomalies	234
1959 Hill	Vanex Minerals Ltd.	Geophysical: 120.0 km Magnetic	No significant anomalies. Road building in the Homfray Lake area	266
1959	Vanex Minerals Ltd.	Diamond Drilling: Two drill holes; 1-358 and 2-293 feet (198 metre total)	Hole No. 1: The lower portion of the hole siliceous altered grey-green rock with considerable pyrite. Hole No. 2: Altered volcanics were noted but no mineralization was reported	18048
1972 Deleen/Nordin	Texada Mines	Geochemical: 268 samples Geological: 775 hectares Geophysical: 23.3 km Magnetic	One of four geochemical anomalies coincides with a magnetometer anomaly and an I.P. chargeability anomaly. One magnetometer anomaly	4041
1972 Scott/Cochrane	Texada Mines	Geophysical: 14.3 km IP; 8.3 km Self Potential	Three weak to moderate chargeability anomalies greater than 8.0 ms. Two coincident anomalies with SP anomalies and one with an SP anomaly and high resistivity.	4042
1972 Lammle	Newco Ventures	Geochemical: 1128 samples	Two large soil anomalies of moderate intensity in an area of intrusive diorite. Anomalies are subjacent to, or in the immediate proximity of intersections.	4057
1979 Sookochoff	Thunderbolt Resources Ltd.	Geophysical: 14.0 km, VLF; 14.0 km Magnetic,	Correlative magnetometer lows with VLF-EM anomalies possibly reflecting strong fault, shear zone or hydrothermal alteration	7268
1980 Mark	Thunderbolt Resources Ltd.	Geophysical: 4.1 km, VLF; 4.1km Magnetic	Northerly and northwesterly trending VLF-EM anomalies correlating with magnetic highs.	8032

Table 4. Summary of exploration history and exploration results (cont'd)

1980 Mark	Thunderbolt Resources Ltd.	Geochemical: 383 samples	Anomalous values in copper, zinc, and molybdenum.	8397
1981 McQuar rie	Charles Boitard	Geophysical: 2.81 km IP	Two IP anomalies	9854
1982 Cukor	Visa Resources Ltd (1) I. Borovic (2)	Geochemical: Geophysical:	Apparent high magnetic response over the areas of trenching.	10551
1984 Cukor	V. Cukor (1) Promina Develop- ments Ltd.(2)	Geophysical: Magnetic, ground Physical; 3.6 km Line Grid	A definite northwest-southeast magnetic pattern was noted.	12287
1986 Crooker / Rockel	Western Resource Technologies Inc.(2)	Geophysical: 4.0 km VLF; 4.0 km IP; 750 Magnetic;	Moderate to low VLF-EM conductance. One conductor appears coincident with a magnetic high.	14959
1986 Crooker / Rockel	Western Resource Technologies Inc.(2)	Geophysical: 4.0 km VLF;750 m IP; 4.0 km Magnetic;	Anomalous geochemical concentrations. Several geophysical targets that require definition	15060
1987 Rockel	E.R. Rockel (1) Interpretex Resources Ltd. (2)	Geochemical: 17 soils; 2 rocks	No significant gold and silver anomalies over previous two VLF-EM conductors.	16189
1987 LaRue/ Boitard	C. Boitard (1) Menika Mining (2)	Geophysical: 3 km IP	The survey extended the north-- northwest trending previous I.P. anomaly 200 metres. Two pfe peaks of 12% and 17% were the greatest to date.	17070
1988 Rockel	G.F. Crooker (1) Western Resource Technologies Inc (2)	Geochemical: 536 soil; 9 silt; 13 rock samples Geological: 8.0 hectares Geophysical: 18.6 km VLF; 16.8 km ground magnetic	One weak gold geochemical anomaly and a number of copper and zinc geochemical anomalies.	17337
1988 Rockel	E.R. Rockel (1) E.R. Rockel (2)	Geochemical: 50 samples	Two anomalous gold zones correlate with slight arsenic highs.	17849
1988 Crooker	G.F. Crooker (1) Western Resource Technologies Inc (2)	Geochemical: 403 soil samples; 31 rock samples Geological: 200 hectares Geophysical: 6.0 km I.P.	Weakly anomalous gold, silver, copper and zinc.	18048

Table 4. Summary of exploration history and exploration results (cont'd)

1989 Kim	C. Boitard (1) (2)	Drilling: 7 holes; 2046.6 m Geochemical: 45 samples	Bleaching, kaolinization and argillization plus mylonitized shear zones in places present moderate sulphide mineralization, but its auriferous content would not be significant to date.	19140
1992 Crooker	G.F. Crooker (1) (2)	Geophysical: 5.8 km VLF 6.3 km magnetic 6.3 km line/grid	One prominent circular shaped magnetic high defined. A number of weak to moderate strength VLF-EM conductors outlined.	22346
1992 Crooker	G.F. Crooker (1) (2)	Geophysical: 7.1 km VLF 7.4 km magnetic	Magnetic highs are mostly narrow, linear trends which coincide with conductor systems.	22366
1996 Crooker	G.F. Crooker (1) Goldcliff Resource Corporation (1) (2)	Geochemical: 24 silt samples 2697 soil samples Geophysical: 67.3 km VLF 91.0 km magnetic	Anomalous gold values in silt samples. A number of significant magnetic and electromagnetic features. Plug showing appears to be associated with a weak magnetic high, VLF conductivity	24862
1997 Crooker	G.F. Crooker (1) L.W. Saleken (1) Goldcliff Resource Corporation (2)	Drilling: 8 rotary drill holes Geochemical: 586 samples Physical: 5 trenches	Gold values of 0.7 to 2,850 g/t in 40-foot section with C-Q-M alteration of drill-hole PLO2. Moderate south dipping zone of gold and silver mineralization.	25405
2005 Sookochoff	Aurora Capital Inc.	Geological: Photo; 489 ha	Three cross-structural locations indicated	28671
2007 Sookochoff	L. Sookochoff (1) (2)	Geological: Photo; 370 ha	Three cross-structural locations indicated	29034
2007 Sookochoff	L. Sookochoff (1) (2)	Geophysical: 2.0 km VLF	Four northerly trending VLF-EM anomalies	29495
2008 Sookochoff	Aurora Capital Inc.	Geological:	Rhyolite: Zone of potential mineralization discovered.	No AR Figures 17-19

Table 4. Summary of exploration history and exploration results (cont'd)

2008 Crooker	G.F. Crooker (1) (2)	Geochemical: 68 samples	The results of the survey did not yield any anomalous molybdenum, antimony, or lead geochemical values.	30550
2015 Ellerbeck	K. Ellerbeck (1) (2)	Geochemical: 9 rock samples Prospecting: 3.0 ha	Elevated level of Au, Ag and Cu in samples 1-4-9. Elevated levels of Pb, Zn in samples 1-4-9.	35772
2016 Sookochoff	C. & G. Delorme (1) (2)	Geological: Photo; 370.4 ha Geophysical: 4.5 km magnetic	Magnetometer low correlates with a former delineated cross-structure.	35735
2018 Sookochoff	L. Sookochoff (1) (2)	Historic Analysis and Evaluation	Recommendations: IP surveys over the JHC and Rhyolite showings. Drill-hole to test the reported pyritic and altered zone below the 109 m depth of the 1959 drill-hole	36958
2017 Ellerbeck	K. Ellerbeck (1) (2)	Geochemical: 4 rock samples Prospecting: 2.0 ha	Confirmed reported geology and showed that significant mineralization is present in the host Nicola Group rocks within the PLUG property	37206
2019 Ellerbeck	K. Ellerbeck (1) (2)	Prospecting:		38178
2019 Ellerbeck	K. Ellerbeck (1) (2)	Prospecting:		38305
2019 Ellerbeck	K. Ellerbeck (1) (2)	Prospecting:		38307

7.0 Geological Setting and Mineralization

7.1 Regional Geology and Mineralization

Regionally, the Bertha property is situated within the Quesnel Trough, a 30 to 60 km wide belt of Lower Mesozoic volcanic and related strata enclosed between older rocks and much invaded by batholiths and lesser intrusions (*Campbell and Tipper, 1970*).

The well-known Nicola Belt of Nicola Group rocks within the southern portion of the Quesnel Trough, comprised mostly of intermediate to basic volcanic flows and breccias with minor amounts of greywacke, argillite and limestone, continues nearly 200 km southward to its termination at the U.S. border.

From Sookochoff, L. – Geophysical Assessment Report on the SED Mineral Claim for Balto Resources Ltd. June 5, 2013. AR 33,849.

1972 – Texada Mines Ltd. completed a magnetometer survey, a soil geochemical survey, and 1,400 feet of percussion drilling (AR 4,041) on the Plug claims which subsequently lapsed and now is ground covered in part by the northeast corner of the SED mineral claim. The surveys covered a small portion of the property adjacent to the SED mineral claim. The results of the surveys outlined four geochemical anomalies and one magnetometer anomaly.

The prime geochemical anomalies were isolated one station anomalies with values of just over 100 ppm copper. They were designated as the “B” anomaly, located within 50 metres of the northern boundary of the SED mineral claim, and the “A” anomaly located next to Meadow Creek and within 1,000 metres east of the eastern boundary of the SED mineral claim. Multi-station magnetic highs are correlative with the copper anomalous zones. There is no reported information on the results of the percussion drilling.

1972 – Texada Mines Ltd. completed an Induced Potential survey which resulted in the determination of a chargeability anomaly, SP anomaly and a resistivity low correlative with the “B” soil anomaly and sub-correlative with the “A” anomaly.

Percussion drill holes are indicated on the Texada maps; however, there is no information as to their results. The drill holes appear to have tested the correlative “B” and “A” anomalous zones. One drill hole designated as P-72-6 is located on the “B” anomaly at the boundary of the SED mineral claim. The “B” correlative anomaly is indicated to extend for 250 metres into the SED mineral claim.

1982 – Visa Resources Ltd. completed a reconnaissance program of geological mapping, geochemical soil sampling and initial ground magnetic surveys over an area that included all the ground of the SED mineral claim. On the accompanying maps to his report, Cukor outlines some trenches, which are indicated to be located on the Texada correlative anomaly “B”. These trenches are also indicated to be located in part on the SED mineral claim. Cukor (1982) concludes that the broad, airborne magnetic low could be easily interpreted as being caused by a small granitic intrusion underlying the Nicola Volcanic rather close to the surface and reported that additional work is warranted.

1983 – Visa Resources Ltd. completed a localized magnetometer survey adjacent to the south of Desmond Lake (AR 11,296). Cukor (1983) reports that the results of the survey were inconclusive.

1985-1988 – Western Resources Technologies Inc. completed geological, geochemical and geophysical surveys on the WRT group of mineral claims located adjacent to the north of the SED mineral claim and on ground now covered by the SED mineral claim. Work was carried out over two localized areas designated as the Rhyolite grid, and the Meadow Creek grid which the SED mineral claim covers a southern portion thereof. The Meadow Creek grid also includes the West Central and the South Central Plug showings which are the renamed Texada “B” correlative anomaly (West Central Plug showing) and the Texada “A” anomaly (South Central Plug showing).

1992 – G.F. Crooker completed a geophysical survey on the JB 1 to 12 Claims, which were staked to cover the former Texada correlative anomalous zones “A” and “B” and which were also recently designated as the South Central Plug showing and the South Central Plug showing within the Meadow Creek zone. The surveys were localized on the two zones of the Meadow Creek grid. Crooker reports (AR 22,346) that the results of the magnetometer survey indicated a potential expression of a buried intrusive body. The VLF-EM survey results were inconclusive.

2003-2005 – Geophysical, geochemical, and geological surveys were completed on the SED claim by Dancing Star Resources Ltd.

2006-2012– Localized geophysical surveys were completed on the SED claim by Alcor Resources Ltd. (Name change from Dancing Star Resources Ltd.) and Balto Resources Ltd. (Name change from Alcor Resources Ltd.).

**From GOLDCLIFF RESOURCE CORPORATION NEWS RELEASE JULY 20, 2006
PLUG PROJECT- PHASE I EXPLORATION COMPLETED**

..... Goldcliff reports Phase I regional exploration work has been completed on the Plug Project in the Merritt-Logan Lake gold belt, British Columbia, Canada. Phase I exploration work consisted of following up on the claim's 24 stream sediment gold anomalies with more stream sediment sampling and prospecting. The claims cover an area of 150 square kilometres of Nicola Group volcanics and sediments, a geologic setting with significant potential. The geological targets are epithermal gold-silver deposits, which are a new discovery-deposit-type in this portion of the Nicola Group. In the past, Goldcliff has discovered two showings on these claims - the Plug and the Meadow showings. The Plug surface showing contains 20.78 g/t gold and 113.00 g/t silver. The drilling results for PDH-02 returned an average of 1.30 g/t gold and 17.2 g/t silver over a hole-length of 9.91 metres. The Meadow surface showing contains 6.10 g/t gold and 1715.0 g/t silver. The drilling results for PDH-01 returned an average of 0.08g/t gold and 27.8g/t silver over a hole-length of 47.25 metres. Both the Plug and Meadow showings contain very encouraging gold and silver surface trench and drill results.

The Phase I regional exploration on the claims is concentrating on the follow-up of Goldcliff's stream sediment sampling survey (1997), which consisted of collecting 55 stream sediment samples along various drainages in the Merritt-Logan Lake gold belt. The sample results identified 26 gold stream sediment anomalies ranging from 10 to 765 ppb gold, ten of which are strongly anomalous in gold values ranging from 185 to 765 ppb gold. Two of these gold anomalies identified the Plug and Meadow showings.

The Plug Project Merritt-Logan Lake gold belt is situated just east of the newly-discovered Spences Bridge–Merritt gold camp. The Spences Bridge–Merritt gold camp was discovered by Almaden Minerals Ltd in 2005 as a result of anomalous gold stream sediment values. Almaden's stream sediment survey discovered elevated gold values in stream sediments, reportedly in the range of 2 to 14 ppb gold. The follow-up prospecting of the anomalous gold sediment anomalies resulted in the staking of claims. The prospecting of these anomalous gold sediment anomalies resulted in the discovery of several showings that contain gold mineralization, one of which is the Skoonka Creek gold showing that has returned 20.2 g/t gold.

From AR 19140, H. Kim, P.Geo., for C. Boitard, Diamond Drilling, DES Claims 1989

A diamond drilling program consisting of seven holes totalling 2046.60 m. was completed on the Des Claim Group during the period from January to May 1989.

The purpose of drilling was to drill the I.P. Anomaly to locate sulphides which could be associated with sulphides of economic value..... And

"The property is located within a north-south trending zone of the Nicola Group of Upper Triassic sediments and volcanics, forming an arcuate band up to 25 miles wide and stretching from Princeton in the south, through Merritt and beyond Kamloops Lake. Peripheral rocks are predominantly intrusives along with Cretaceous and younger sediments and volcanics. Stocks and plugs of intrusives are occasionally evident throughout the Nicola rocks." And

The presence of a native copper bearing basalt (reportedly up to 2%) was confirmed in the field by the writer at Holes Des 89-2, 89-6 and 89-7.....

In January 1989, a massive sulphide showing was exposed during the course of building drill roads 50 meters southeast of Hole Des 89-1. The showing consisted mainly of chalcopyrite and bornite in the gangue of quartz carbonate materials.

The BERTHA Claim Group was acquired by online staking by the Author and Current Owner: November 2, 2015 – Tenures 1039697, 1029713, and 1049929 February 10, 2017. Tenure 1064715 was located November 26, 2018 and 1064900 was located December 4, 2018. 1069575 was located July 10, 2019, 1064406 was located November 10, 2018 and 1067470 was located March 27, 2019. Tenure 1066816 was purchased from Others.

2.5 Summary of Work Done

2019 WORK PROGRAM

The Tenure Numbers in the BERTHA Claim Group on which work was performed: 1064715.

Sampling Program - The author was on the BERTHA Claim Group in July 2019 to select rock samples for understanding the geology of the property and to determine if there was mineralization present and the type of mineralization, if any. Four (4) rock grab samples were taken within the July 2019 work area. Four (4) samples were submitted for assay.

In particular, the author wanted to continue prospecting on the DES Claim (1064715) to find further presence of outcrop similar to that discovered by the author during the April 2019 – see Figure 5 and Fig. 6 - prospecting program completed on Tenure 1064715 which encountered outcrop exposure of interest. “OC” outcrop. AR38307.

Tenure 1064715 has abundant overburden and outcrop is limited to logged and disturbed areas.

The April 2019 Assessment Prospecting encountered the “OC” outcrop in a recently logged area. See Figure 5 & 6. Assay results of the rock sample taken at OC did not reveal any significant mineralization. However, the author was impressed by the extent of the quartz veining in the “greenstone” outcrop.

The “OC” is located within an indicated copper anomaly. See Lammler AR4057. See Fig. 12.

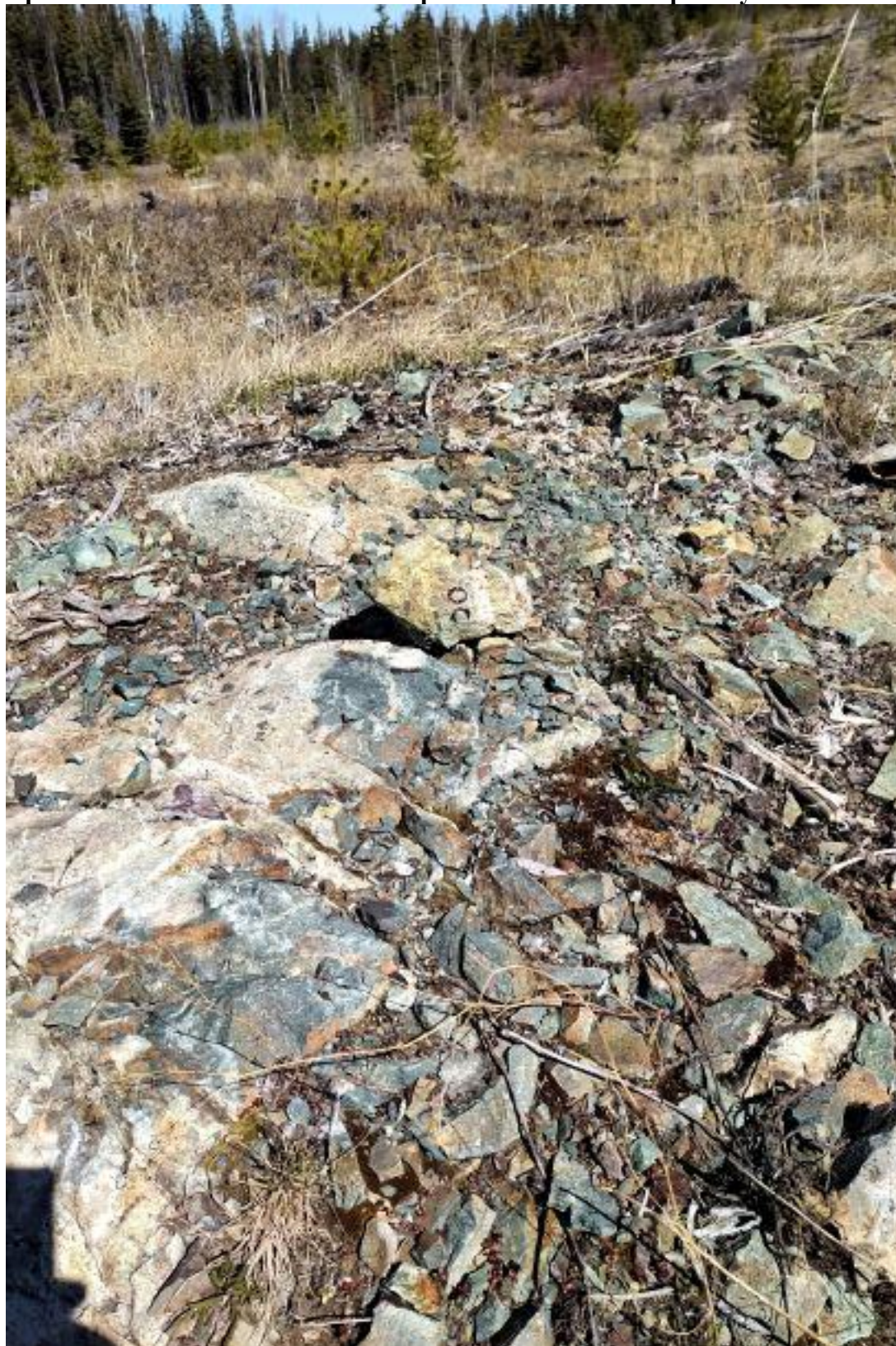
The new outcrop discovery at Bertha 19-1,2,3, 4 sample locations appears to be within the same copper anomaly area indicated in AR 4057 (Lammler).

The new outcrop was exposed during recent logging access road construction in Tenure 1064715.

The new outcrop appears to be similar in geology to the “OC” showing discovery of April 2019. **There is a one (1) kilometre strike separation between the “OC” and the new outcrop/showing.**

Figure 5 Outcrop – from April 2019 Assessment

April 2019 “OC” Greenstone Outcrop from Assessment Report by the author:



April 2019 "OC" Greenstone Outcrop from Assessment Report by the author



April 2019 "OC" Greenstone Outcrop from Assessment Report by the author

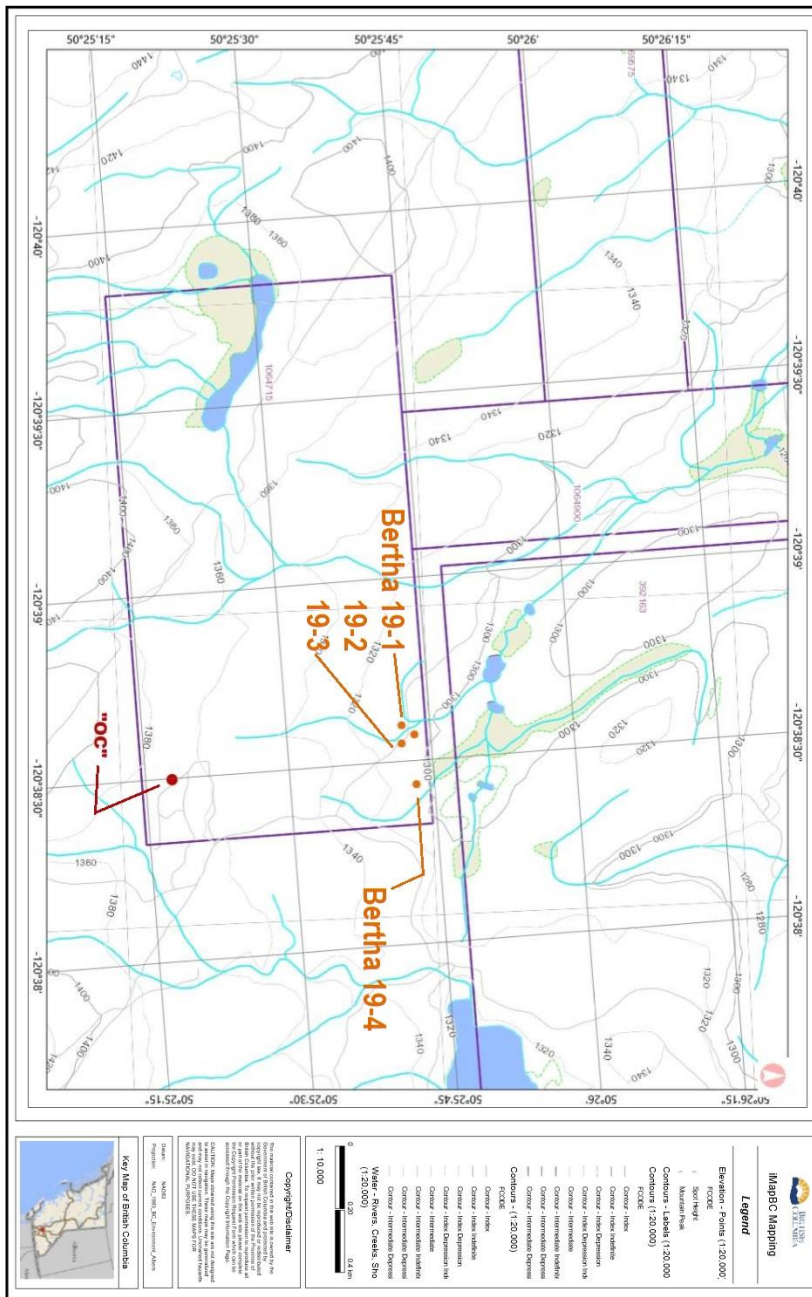


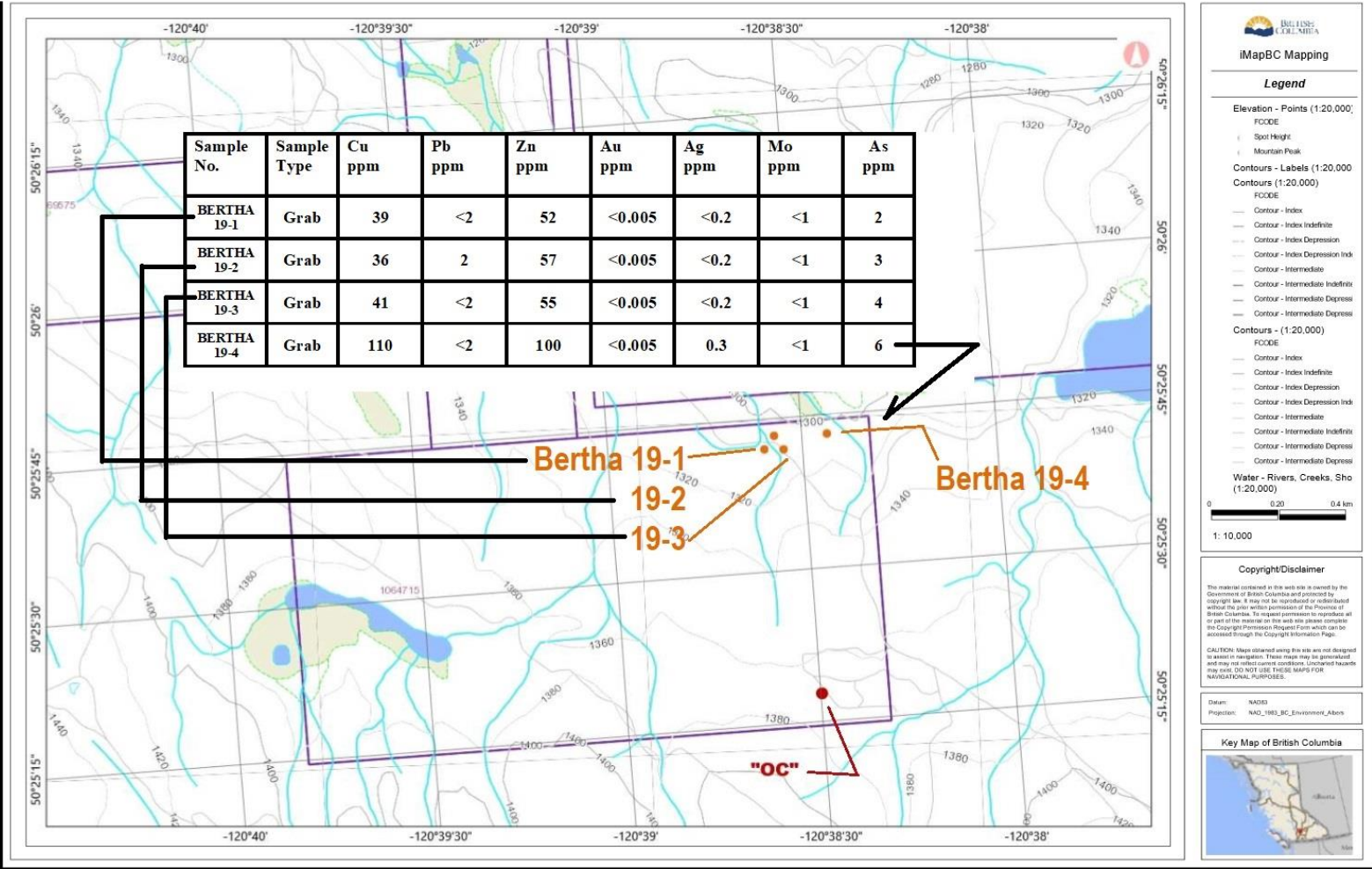
April 2019 “OC” Greenstone Outcrop from Assessment Report by the author



Prospecting was conducted on July 13, 2019 (Figure 4 Index - Work Area). One (1) field days were spent on the BERTHA Claim Group, including prospecting and travelling to and from the property. One (1) day was spent researching reference material, and a further one (1) day was spent compiling data, drafting and one (1) day spent writing this report.

Figure 6 Sample Location Area Map – Rock – July 2019





imapBC Mapping

Legend

- Elevation - Points (1:20,000); FGDDE
- Spot Height
- Mountain Peak
- Contours - Labels (1:20,000)
- Contours (1:20,000) FGDDE
- Contour - Index
- Contour - Index Indefinite
- Contour - Index Depression
- Contour - Index Depression Inlt
- Contour - Intermediate
- Contour - Intermediate Indefinite
- Contour - Intermediate Depressi
- Contour - Intermediate Depressi
- Contours - (1:20,000) FGDDE
- Contour - Index
- Contour - Index Indefinite
- Contour - Index Depression
- Contour - Index Depression Inlt
- Contour - Intermediate
- Contour - Intermediate Indefinite
- Contour - Intermediate Depressi
- Contour - Intermediate Depressi
- Water - Rivers, Creeks, Sho (1:20,000)

0 0.20 0.4 km

1: 10,000

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Datum: NAD83
Projection: NAD_1983_BC_Environment_Altos

Key Map of British Columbia

Table II Particulars of Grab Samples July 2019 BERTHA CLAIM GROUP

No.	LOCATION ROCK SAMPLE #	UTM LOCATION		DESCRIPTION All OUTCROP
1	BERTHA 19-1	0667407	5688938	Bedrock. Grey-green volcanic.Highly siliceous. Rhyolite? Fractured.Quartz vein to 5 cm-crystals. Vugs cavities.Vesicular “rind” with hematite. Hematite fracture fill. Iron stain.Visible metal. Dip Vert/strike N
2	BERTHA 19-2	0667408	5688938	Bedrock. Grey-green volcanic.Highly siliceous. Fractured.Quartz veinlets.crystals.fracture fill. Vugs. Vesicular section with hematite. Hematite fracture fill.Iron stain.Visible metal. Dip Vert/strike N
3	BERTHA 19-3	0667409	5688939	Bedrock. Grey-green volcanic.Highly siliceous. Fractured.Quartz veinlets.crystals.fracture fill. Vugs. Vesicular section with hematite. Hematite fracture fill.Iron stain.Visible metal.Bornite,Chalco Dip Vert/strike N. Slickenside features
4	BERTHA 19-4	0667574	5688943	Bedrock. Dark Grey-green amygdoidal basalt? Highly altered. Fractured. Contorted. Quartz veins and veinlets crystals.fracture fill. Hematite in fracture fill.Iron stain.Visible metal.Chlorite eyes.Quartz eyes.Purple banding-basalt? Dip Vert/strike N.

Figure 7 Location and Typical Rock Pictures – July 2019

BERTHA 19-1 Location Picture









BERTHA 19-1 Rock Picture



BERTHA 19-1 Rock Picture



BERTHA 19-2 Location Picture – same as BERTHA 19-1 Location +/- 2m

BERTHA 19-2 Rock Picture



BERTHA 19-2 Rock Picture



BERTHA 19-2 Rock Picture



BERTHA 19-3 Location Picture – same as BERTHA 19-1 Location +/- 2m

BERTHA 19-3 Rock Picture



BERTHA 19-3 Rock Picture



BERTHA 19-4 Location Picture





BERTHA 19-4 Rock Picture



BERTHA 19-4 Rock Picture



BERTHA 19-4 Rock Picture



BERTHA 19-4 Rock Picture



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3. Regional and Property Geology

3.1 Regional Geology

Table 4. Summary of exploration history and exploration results (cont'd)

2008 Crooker	G.F. Crooker (1) (2)	Geochemical: 68 samples	The results of the survey did not yield any anomalous molybdenum, antimony, or lead geochemical values.	30550
2015 Ellerbeck	K. Ellerbeck (1) (2)	Geochemical: 9 rock samples Prospecting: 3.0 ha	Elevated level of Au, Ag and Cu in samples 1-4-9. Elevated levels of Pb, Zn in samples 1-4-9.	35772
2016 Sookochoff	C. & G. Delorme (1) (2)	Geological: Photo; 370.4 ha Geophysical: 4.5 km magnetic	Magnetometer low correlates with a former delineated cross-structure.	35735
2018 Sookochoff	L. Sookochoff (1) (2)	Historic Analysis and Evaluation	Recommendations: IP surveys over the JHC and Rhyolite showings. Drill-hole to test the reported pyritic and altered zone below the 109 m depth of the 1959 drill-hole	36958
2017 Ellerbeck	K. Ellerbeck (1) (2)	Geochemical: 4 rock samples Prospecting: 2.0 ha	Confirmed reported geology and showed that significant mineralization is present in the host Nicola Group rocks within the PLUG property	37206
2019 Ellerbeck	K. Ellerbeck (1) (2)	Prospecting:		38178
2019 Ellerbeck	K. Ellerbeck (1) (2)	Prospecting:		38305
2019 Ellerbeck	K. Ellerbeck (1) (2)	Prospecting:		38307

7.0 Geological Setting and Mineralization

7.1 Regional Geology and Mineralization

Regionally, the Bertha property is situated within the Quesnel Trough, a 30 to 60 km wide belt of Lower Mesozoic volcanic and related strata enclosed between older rocks and much invaded by batholiths and lesser intrusions (*Campbell and Tipper, 1970*).

The well-known Nicola Belt of Nicola Group rocks within the southern portion of the Quesnel Trough, comprised mostly of intermediate to basic volcanic flows and breccias with minor amounts of greywacke, argillite and limestone, continues nearly 200 km southward to its termination at the U.S. border.

Figure 8 Regional Geology

Geological Setting and Mineralization (cont'd)

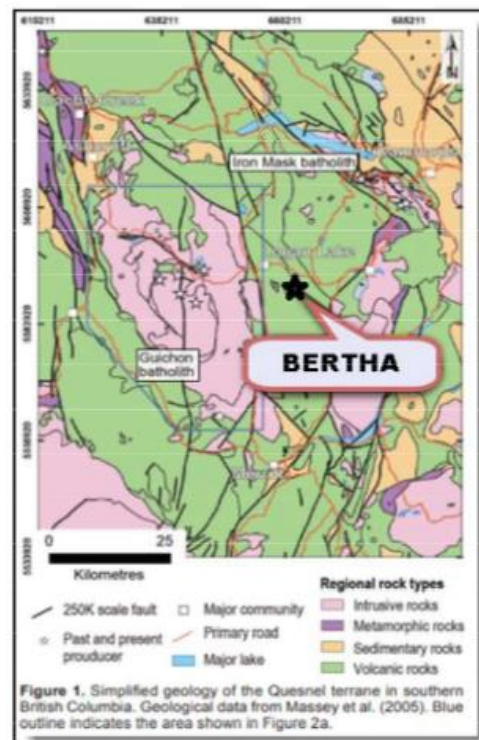
Regional Geology and Mineralization (cont'd)

The Nicola Belt to the west is bordered in part by the Guichon Creek Batholith, host to the major porphyry copper mines of the Highland Valley, and in part to the northeast by the Iron Mask Batholith, host to the New Afton Mine. Principal structures, as suggested by regional aeromagnetic lineaments, trend mostly in a northwesterly direction.

The Guichon Creek Batholith and the Nicola Group are well known for their economic importance. Small stocks within Nicola Group, because of the likelihood of copper and or molybdenum minerals occurring nearby, are economically significant as well.

The ore-deposits of the Highland Valley are structurally controlled. Movements on the Lornex and Highland Valley faults occurred simultaneously and alternatively in the final phases of intrusion of the Guichon Batholith. The fault planes provided the openings for the admission and deposition of mineral and igneous matter.

Figure 5. Regional Geology: Quesnel Terranes
(Base map from Britton, 2016)

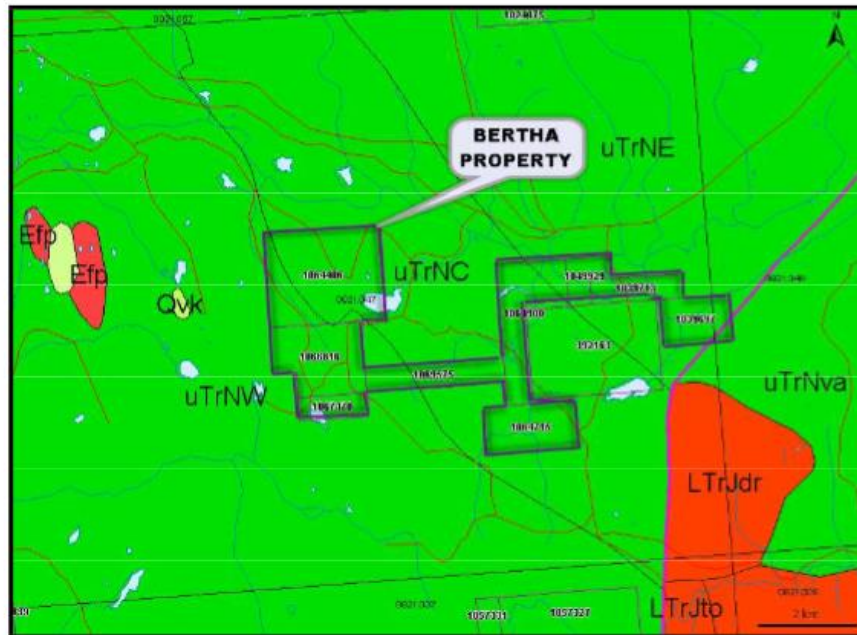


3.2 Local Geology

7.2 Local Geology and Mineralization

Locally, the Bertha property is predominantly underlain by the Central and the Western Volcanic Facies of the Upper Triassic Nicola Volcanics which are in a regional fault contact with the Late Triassic to Early Jurassic Guichon Batholith four kilometres to the west.

Figure 6 . Property Geology
(Base map from MapPlace)



LEGEND

Mivb
Pleistocene to Holocene-unnamed
Alkaline volcanic rocks

Mivb
Miocene-unnamed
Basaltic volcanic rocks

Efp
Eocene-Penticton Group
Andesitic volcanic rocks

Upper Triassic-Nicola Group
uTrNW
Western Volcanic Facies
undivided volcanic rocks

uTrNC
Central Volcanic Facies
andesitic volcanic rocks

uTrNE
Eastern Volcanic Facies
basaltic volcanic rocks

uTrNva
andesitic volcanic rocks

Late Triassic to Early Jurassic
LTrJdr - dioritic intrusive rocks
TrJto – unnamed
tonolite intrusive rocks

3.2 Local Geology continued

Sookochoff Consultants Inc.

Bertha Property

December 24, 2019

Geological Setting and Mineralization (cont'd)

7.3 Property Geology and Mineralization (from Minfiles,)

BERTHA MOLLY past producer (Stockwork)

MINFILE 092ISE012

Within Tenure1066816

The Dupont Lake area is underlain mainly by Upper Triassic Nicola Group intermediate volcanics and derivatives. Approximately 8 kilometres to the west, Nicola Group rocks are in contact with the Lower Jurassic Guichon Creek Batholith. Quartz diorite outcrops southwest of Dupont Lake.

The Bertha-Molly showing is hosted by purplish amygdaloidal andesites with intercalated reddish tuffs. These rocks are strongly fractured and chloritized.

Recent development has exposed malachite, azurite, chalcopyrite, cuprite and pyrite hosted by shears and fracture-fillings in vesicular volcanics and red tuffs. Mineralization is structurally controlled with an apparent north trend. A common alteration is calcite and epidote, with silicification becoming stronger at depth.

RHYOLITE showing (Hydrothermal, Epigenetic)

MINFILE 092ISE021

Within Tenure1064406

The area straddles a northwest trending contact between two volcanic sequences of the Upper Triassic Nicola Group. To the west are plagioclase, plagioclase-augite intermediate pyroclastic and epiclastic breccia, conglomerate, tuff, sandstone, local shale and augite porphyry bodies. The central portion to the east is underlain by aphanitic pillowed mafic flows. The contact between these two sequences hosts the Rhyolite occurrence.

The Rhyolite showing is underlain by grey, green or black amygdaloidal basalt of the Upper Triassic Nicola Group. Varicoloured calcite amygdules occur within an aphanitic groundmass. Several beds of maroon to green volcanoclastic breccia occur within the basalt and contain maroon, subrounded to subangular clasts ranging up to 30 by 15 centimetres. Two northwest trending, light grey-green, aphanitic, siliceous and pyritic felsic dykes, 3 to 4 metres wide, also occur.

Mineralization occurs in amygdaloidal basalt near the flow-volcanoclastic contact and is related to narrow quartz-carbonate veinlets within shears. Several old trenches indicate the shear zone strikes approximately 335 to 345 degrees and dips steeply west. Pyrite is present with minor chalcopyrite, azurite, malachite and sphalerite. Rock samples from this zone assayed up to 0.377 per cent copper, 0.218 per cent zinc and are weakly anomalous in gold and silver values (Assessment Report 18048).

Additional information on the mineralization within the Bertha property is provided in a report by Western Resource Technology wherein:

"During the 1985 exploration program a showing of "rhyolite" with up to 5% pyrite was found along the main road. A sample taken from the outcrop assayed 0.78 oz/ton Ag, 1.76% Cu and 1.52% zinc. Outcrop is generally sparse over the eastern section of the grid although several old trenches were found in the immediate vicinity of the showing. Weakly silicified andesite and rhyodacite were exposed in the trenches with up to 5% pyrite. Sample 87-005 gave weakly anomalous values of 5.5 ppm Ag and 55 ppb Au.

The proximity of these showings to the flow-pyroclastic contact makes the area a good target for stratabound massive sulphide mineralization."

Ken Ellerbeck -

Technical NI 43-101 Report

page 19 of 42

JHC showing (Volcanic redbed Cu)

MINFILE 092ISE147

Within Tenure 1064406

The property lies west of Homfray Lake and is underlain by volcanic rocks of the Upper Triassic Nicola Group. The area straddles a northwest trending contact between two volcanic sequences. East of the contact zone are very fine-grained red flows with occasional feldspar (plagioclase?) phenocrysts. The matrix contains moderate amounts of hematite disseminations. To the west are grey volcanics with an aphanitic to fine-grained matrix and associated feldspar and/or augite phenocrysts. Alteration consists of epidote, chlorite and carbonate. The contact zone parallels the main northwest structural trend. Northeast and north trends are also evident.

Drilling (1971) intersected disseminated chalcocite in porphyritic and amygdaloidal basalt. Fracturing and narrow shears in amygdaloidal andesite contain epidote, carbonate, quartz, malachite and chalcopyrite. A chip sample assayed 4.27 per cent copper and 14.2 grams per tonne silver (Assessment Report 17337).

MEADOW CREEK showing

MINFILE 092ISE155

Within Tenure 1039697

The area is underlain by volcanic rocks of the Upper Triassic Nicola Group which are cut by small granitic plugs and sills. Sparse outcroppings of Nicola Group rocks along Meadow Creek consist of altered andesite, lapilli tuff, amygdaloidal basalt and minor lenses of limy sediments which strike east to southeast and dip steeply to the north. Alteration minerals include chlorite, epidote, carbonate and hematite. A quartz-mariposite-carbonate rock outcrops along Meadow Creek and is in contact with a chlorite-mica-feldspar(?) schist that strikes 020 degrees and dips 65 to 90 degrees to the east. The schist and mafic dioritic to hornblende andesite sills form a southeastward plunging asymmetrical syncline.

Locally, an alteration zone contains gold and silver mineralization and is exposed over a surface area of 32 metres long by 2 metres wide. The alteration zone consists of chlorite-mica (fuchsite) feldspar schist containing a quartz vein stockwork that is accompanied by pyrite, galena, sphalerite and chalcopyrite.

PLUG showing (Volcanogenic)

MINFILE 092ISE196

Within Tenure 1066816

The area is underlain by volcanic rocks of the Upper Triassic Nicola Group that are cut by small granitic plugs and sills. Sparse outcroppings of Nicola Group rocks along Meadow Creek consist of altered andesite, lapilli tuff, amygdaloidal basalt and minor lenses of limy sediments that strike east to southeast and dip steeply to the north. Alteration minerals include chlorite, epidote, carbonate and hematite. A quartz-mariposite-carbonate rock outcrops along Meadow Creek and is in contact with a chlorite-mica-feldspar schist that strikes 20 degrees and dips 65 to 90 degrees to the east. The schist and mafic dioritic to hornblende andesite sills form a southeastward plunging asymmetrical syncline.

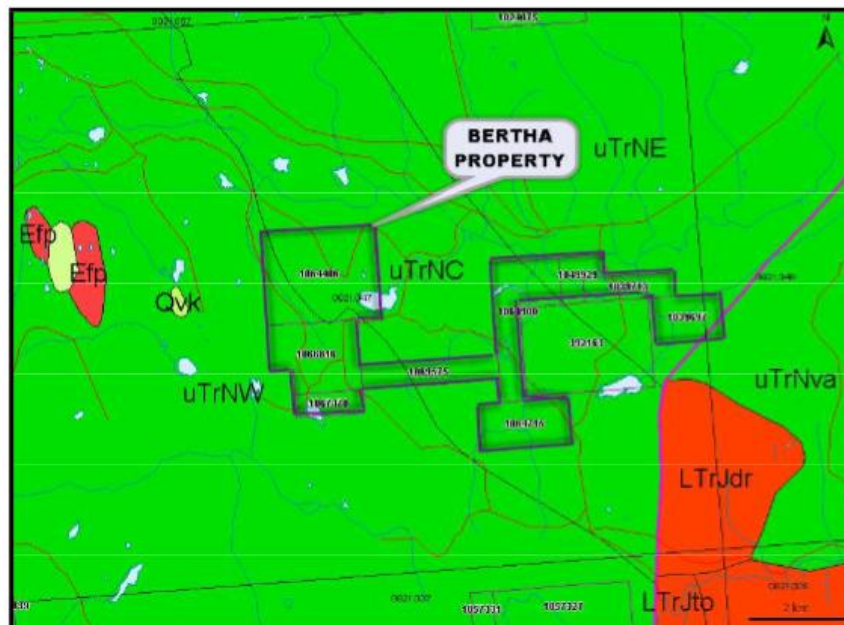
The quartz mariposite carbonate rock contains minor amounts of silver-bearing galena, sphalerite and chalcopyrite. An outcrop of highly pyritic quartz feldspar porphyry contains minor amounts of chalcopyrite.

Figure 9 Local Geology

7.2 Local Geology and Mineralization

Locally, the Bertha property is predominantly underlain by the Central and the Western Volcanic Facies of the Upper Triassic Nicola Volcanics which are in a regional fault contact with the Late Triassic to Early Jurassic Guichon Batholith four kilometres to the west.

Figure 6 . **Property Geology**
(Base map from MapPlace)



LEGEND

Mivb
Pleistocene to Holocene-unnamed
Alkaline volcanic rocks

Mivb
Miocene-unnamed
Basaltic volcanic rocks

Efp
Eocene-Penticton Group
Andesitic volcanic rocks

Upper Triassic-Nicola Group
uTrNW
Western Volcanic Facies
undivided volcanic rocks

uTrNC
Central Volcanic Facies
andesitic volcanic rocks

uTrNE
Eastern Volcanic Facies
basaltic volcanic rocks

uTrNva
andesitic volcanic rocks

Late Triassic to Early Jurassic
LTrJdr - dioritic intrusive rocks

TrJto – unnamed
tonolite intrusive rocks

uTrNC
Central Volcanic Facies
andesitic volcanic rocks

uTrNE
Eastern Volcanic Facies
basaltic volcanic rocks

uTrNva
andesitic volcanic rocks

Late Triassic to Early Jurassic
LTrJdr - dioritic intrusive rocks

TrJto – unnamed
tonolite intrusive rocks

3.3 Structural Geology

MINFILE Number: 092ISE155, PLUG, MEADOW CREEK;

The area is underlain by volcanic rocks of the Upper Triassic Nicola Group which are cut by small granitic plugs and sills. Sparse outcroppings of Nicola Group rocks along Meadow Creek consist of altered andesite, lapilli tuff, amygdaloidal basalt and minor lenses of limy sediments which strike east to southeast and dip steeply to the north. Alteration minerals include chlorite, epidote, carbonate and hematite. A quartz-mariposite-carbonate rock outcrops along Meadow Creek and is in contact with a chlorite-mica-feldspar schist that strikes 020 degrees and dips 65 to 90 degrees to the east. The schist and mafic dioritic to hornblende andesite sills form a southeastward plunging asymmetrical syncline.

Locally, an alteration zone contains gold and silver mineralization and is exposed over a surface area of 32 metres long by 2 metres wide. The alteration zone consists of chlorite-mica (fuchsite) feldspar schist containing a quartz vein stockwork that is accompanied by pyrite, galena, sphalerite and chalcopyrite.

Two grab samples of quartz carbonate mariposite schist with galena and sphalerite yielded 605 and 482 parts per billion gold and 165.1 and 258.4 parts per million silver (Assessment Report 28815).

MINFILE Number: 092ISE012, BERTHA-MOLLY;

The Dupont Lake area is underlain mainly by Upper Triassic Nicola Group intermediate volcanics and derivatives. Approximately 8 kilometres to the west, Nicola Group rocks are in contact with the Lower Jurassic Guichon Creek Batholith. Quartz diorite outcrops southwest of Dupont Lake. In 1942, George Campbell did some surface-stripping on a copper showing, approximately 457 metres west of an old shaft. Production from this occurrence, known as the Lost group, was 31 tonnes and yielded 218 grams of silver and 626 kilograms of copper.

The Bertha-Molly showing is hosted by purplish amygdaloidal andesites with intercalated reddish tuffs. These rocks are strongly fractured and chloritized. The original shaft was sunk at a point where patches of cuprite occur in fractures. Small shipments were made.

Recent development has exposed malachite, azurite, chalcopyrite, cuprite and pyrite hosted by shears and fracture-fillings in vesicular volcanics and red tuffs. Mineralization is structurally controlled with an apparent north trend. A common alteration is calcite and epidote, with silicification becoming stronger at depth.

MINFILE Number: 092ISE147, JHC;

The JHC property lies west of Homfray Lake, approximately 4 kilometres southeast of Logan Lake and 35 kilometres north of Merritt. The property is underlain by volcanic rocks of the Upper Triassic Nicola Group.

The area straddles a northwest-trending contact between two volcanic sequences. East of the contact zone are very fine grained, red flows with occasional feldspar (plagioclase?) phenocrysts. The matrix contains moderate amounts of hematite disseminations. To the west are grey volcanics with an aphanitic to fine-grained matrix and associated feldspar and/or augite phenocrysts. Alteration consists of epidote, chlorite and carbonate. The contact zone parallels the main northwest structural trend. Northeast and north trends are also evident. Drilling in 1971 intersected disseminated chalcocite in porphyritic and amygdaloidal basalt.

Fracturing and narrow shears in amygdaloidal andesite contain epidote, carbonate, quartz, malachite and chalcopyrite. A chip sample assayed 4.27 per cent copper and 14.2 grams per tonne silver (Assessment Report 17337).

MINFILE Number: 092ISE021, RHYOLITE

The area straddles a northwest-trending contact between two volcanic sequences of the Upper Triassic Nicola Group. To the west are plagioclase, plagioclase-augite intermediate pyroclastic and epiclastic breccia, conglomerate, tuff, sandstone, local shale and augite porphyry bodies. The central portion to the east is underlain by aphanitic pillowed mafic flows. The contact between these two sequences hosts the Rhyolite occurrence.

The Rhyolite showing is underlain by grey, green or black amygdaloidal basalt of the Upper Triassic Nicola Group. Varicoloured calcite amygdules occur within an aphanitic groundmass. Several beds of maroon to green volcanoclastic breccia occur within the basalt and contain maroon, subrounded to subangular clasts ranging up to 30 by 15 centimetres. Two northwest-trending, light grey-green, aphanitic, siliceous and pyritic felsic dikes, 3 to 4 metres wide, also occur.

Mineralization occurs in amygdaloidal basalt near the flow-volcanoclastic contact and is related to narrow quartz-carbonate veinlets within shears.

Several old trenches indicate the shear zone strikes approximately 335 to 345 degrees and dips steeply west. Pyrite is present with minor chalcopyrite, azurite, malachite and sphalerite. Rock samples from this zone assayed up to 0.377 per cent copper and 0.218 per cent zinc and are weakly anomalous in gold and silver values (Assessment Report 18048).

DES

L. Sookchoff, P.Eng. (1976). The Geology is stated as follows: "The property is located within a north-south trending zone of the Nicola Group of Upper Triassic sediments and volcanics, forming an arcuate band up to 25 miles wide and stretching from Princeton in the south, through Merritt and beyond Kamloops Lake. Peripheral rocks are predominantly intrusives along with Cretaceous and younger sediments and volcanics. Stocks and plugs of intrusives are occasionally evident throughout the Nicola rocks."

H. Kim, P.Geol., F.GAC, Consulting Geologist, 1989. "FIGURE 3 is the writer's interpretive bedrock geology of the claims based on core logging of the seven holes drilled spacing 100 - 200 meters apart. The geological contact between the basalt and andesite and fault zone are ill-defined. *The cored rock types for the most part are variants of a basaltic lithotype dominated by fresh augite phenocrysts. Chloritization and hemato-ankeritization are common on the groundmass and phenocrysts throughout the region. The second common rock type is trachyandesitic rock confined to the northeastern sector of Figure 3. The third would be serpentinized basalt to trachybasalt and serpentinite.*

Bleaching including kaolinization and argillization commonly occurs in andesitic rock types. Serpentinization occurs commonly in the basaltic rock at depth, about 200 metres below the surface.

MINERALIZATION: The presence of a native copper bearing basalt (reportedly up to 2%) was confirmed in the field by the writer at Holes Des 89-2, 89-6 and 89-7.

Definition of Mafic

Pertaining to, or composed dominantly of, the [ferromagnesian](#) rock-forming [silicates](#), especially [pyroxenes](#), [amphiboles](#), [olivine](#) and [biotite](#); mostly used with [igneous](#) rocks. Originally an adjective but commonly also used as a "shorthand" noun for both these minerals ([mafic minerals](#)), or rocks rich in such minerals ([mafic rocks](#)). (ma) for magnesium, (f) for iron (Fe).

Definition of Felsic

A mnemonic adj. derived from (fe) for feldspar, (l) for lenad or feldspathoid, and (s) for silica, and applied to light-colored rocks containing an abundance of one or all of these constituents. Also applied to the minerals themselves, the chief felsic minerals being quartz, feldspar, feldspathoid, and muscovite.

3.4 Mineralization

See 3.3 above for each Minfile

Table II Particulars of Grab Samples 2019 BERTHA CLAIM GROUP

No.	LOCATION ROCK SAMPLE #	UTM LOCATION		DESCRIPTION All OUTCROP
1	BERTHA 19-1	0667407	5688938	Bedrock. Grey-green volcanic.Highly siliceous. Rhyolite? Fractured.Quartz vein to 5 cm-crystals. Vugs cavities.Vesicular “rind” with hematite. Hematite fracture fill. Iron stain.Visible metal. Dip Vert/strike N
2	BERTHA 19-2	0667408	5688938	Bedrock. Grey-green volcanic.Highly siliceous. Fractured.Quartz veinlets.crystals.fracture fill. Vugs. Vesicular section with hematite. Hematite fracture fill.Iron stain.Visible metal. Dip Vert/strike N
3	BERTHA 19-3	0667409	5688939	Bedrock. Grey-green volcanic.Highly siliceous. Fractured.Quartz veinlets.crystals.fracture fill. Vugs. Vesicular section with hematite. Hematite fracture fill.Iron stain.Visible metal.Bornite,Chalco Dip Vert/strike N. Slickenside features
4	BERTHA 19-4	0667574	5688943	Bedrock. Dark Grey-green amygdoidal basalt? Highly altered.Fractured. Contorted. Quartz veins and veinlets crystals.fracture fill. Hematite in fracture fill.Iron stain.Visible metal.Chlorite eyes.Quartz eyes.Purple banding-basalt?. Dip Vert/strike N.

4. Technical Data and Interpretation

Table III Summarized Assay Results

Sample No.	Sample Type	Cu ppm	Pb ppm	Zn ppm	Au ppm	Ag ppm	Mo ppm	As ppm
BERTHA 19-1	Grab	39	<2	52	<0.005	<0.2	<1	2
BERTHA 19-2	Grab	36	2	57	<0.005	<0.2	<1	3
BERTHA 19-3	Grab	41	<2	55	<0.005	<0.2	<1	4
BERTHA 19-4	Grab	110	<2	100	<0.005	0.3	<1	6

4.1 Purpose

In July 2019 a prospecting program was completed on Tenures **1064715** of the nine (9) claim BERTHA Claim Group. The purpose of the program was to locate, if possible, geological features (typical copper, gold, silver bearing structures) similar to those reported to be found within and near the BERTHA Claim Group, and to prospect for unidentified outcrops and showings of significance. Information for this report was obtained from sources cited under Selected References and from a property examination made on July 13, 2019.

4.2 Prospecting Results

Overburden is present in the areas examined by the writer. Rock samples taken were from newly exposed bedrock within the claim area.

The Tenure Numbers in the BERTHA Claim Group on which work was performed: 1064715.

Sampling Program - The author was on the BERTHA Claim Group in July 2019 to select rock samples for understanding the geology of the property and to determine if there was mineralization present and the type of mineralization, if any.

Four (4) rock grab samples were taken within the July 2019 work area. Four (4) samples were submitted for assay.

In particular, the author wanted to continue prospecting on the DES Claim (1064715) to find further presence of outcrop similar to that discovered by the author during the April 2019 – see Figure 5 - prospecting program completed on Tenure 1064715 which encountered outcrop exposure of interest. “OC” outcrop. AR38307. See Fig. 6.

Tenure 1064715 has abundant overburden and outcrop is limited to logged and disturbed areas. The April 2019 Assessment Prospecting encountered the “OC” outcrop in a recently logged area. See Figure 5. Assay results of the rock sample taken at OC did not reveal any significant mineralization. However, the author was impressed by the extent of the quartz veining in the highly siliceous “greenstone” – Rhyolite? outcrop. *The “OC” is located within an indicated copper anomaly. See AR4057. See Fig. 12.*

The new outcrop discovery at Bertha 19-1,2,3 appears to be highly siliceous grey-green volcanics – Rhyolite? with Bornite and Chalcopyrite present, and Bertha 19-4 sample location a short distance away appears to be amygdaloidal basalt, all within the same copper anomaly area indicated in *AR 4057*.

The new outcrop was exposed during recent logging access road construction in Tenure 1064715.

4.3 Assay Results - Rock

No Elevated levels of Au were found in the samples;

Slightly Elevated levels of Ag were found in sample Bertha 19-4;

Elevated levels of Cu were found in all samples – in siliceous “rhyolite” and amygdaloidal basalt;

Elevated levels of Co and Cr were found in all samples;

Elevated levels of Zn were found in all samples.

5. Interpretations and Conclusions

5.1 Interpretations

The reported mineralization in the BERTHA Claim Group noted in historic ARIS references was confirmed against field encountered rock outcroppings sampled in July 2019.

Visible metal, in particular Bornite and Chalcopyrite, were observed in Bertha 19-1, 19-2, and 19-3 samples.

The Showings sampled in July 2019 appear to be of similar rock type and mineralization compared to the previously reported grab samples taken in April 2019 by the writer.

The showings sampled appear to be on strike with the “OC” veins/showing reported on and the interpretation is made that all veins/showings (Bertha 19-1, 19-2, and 19-3) are part of a highly siliceous “Rhyolite” system. These samples had elevated Cu level above the threshold of 25 ppm in AR 4057, Lammle 1972. See Fig. 11.

Bertha 19-4 sample was of amygdoidal basalt and that sample contained elevated Cu above the threshold of 25 ppm in AR4057, Lammle 1972.

In the opinion of the writer, the reason for elevated values of Cu in all the samples from the July 2019 program are described by Others as follows:

The following was taken from Lammle (1972); **Lammle, C. R.** – Geochemical Report on Des 1-98 Mineral Claims. B.C. Dept. Mines Assessment Report 4057, 1972, pg 4-5.

Significance is “threshold value” for Cu in soils – 25 ppm – in the Lammle AR 4057:

Table III Summarized Assay Results for “threshold” comparison reference

Sample No.	Sample Type	Cu ppm	Pb ppm	Zn ppm	Au ppm	Ag ppm	Mo ppm	As ppm
BERTHA 19-1	Grab	39	<2	52	<0.005	<0.2	<1	2
BERTHA 19-2	Grab	36	2	57	<0.005	<0.2	<1	3
BERTHA 19-3	Grab	41	<2	55	<0.005	<0.2	<1	4
BERTHA 19-4	Grab	110	<2	100	<0.005	0.3	<1	6

Sampling and Analytical Procedure

Samples were taken by hand from mattock holes dug at 200' intervals along the grid lines. The sampling interval on some fill-in lines was reduced to 100'. The samples were placed in labelled manila envelopes and forwarded to Bondar-Clegg and Co., North Vancouver, B.C., for analysis.

The intent of the soil samplers was to sample the upper part of the B soil horizon. To achieve this, the holes were dug to depths ranging generally between 8 and 14 inches. Where the B horizon was indistinct, the sample was taken from below the humous soils at the horizon where the most conspicuous colour change was found.

After drying at the laboratory, the samples were screened on 80 mesh stainless steel, and 1/2 gram portions of the under-size were dissolved in hot aqua regia. Then the solutes were homogenized and diluted to 20% acid. The copper content of the resulting liquids were then determined by AA4 Atomic Absorption Spectrophotometer, the instrument being kept in calibration by periodic use of prepared and natural soil standards.

Results of the Soil Copper Survey

The analytical results of 1128 analyses are shown planimetrically on Map 4, attached, and graphically on Appendix I.

The graph is a logarithmic probability plot of the analyses, a technique that theoretically should separate logarithmically distributed data into component populations, if they exist. Individual logarithmically distributed populations plot as separate straight lines on such charts. Imperfectly distributed data and overlap between populations causes some rounding of the plot at the intersections of the straight lines, which if reconstructed and projected to an intersection, can be used to indicate the boundary between the separate populations. Appendix I indicates the copper content in Des Group soils to consist of two principal populations, "A" and "B" on the chart, separated by the 25 ppm concentration. The higher 40% belong to population "B". The highest 2% percent of the samples appear to form a third population but the statistical approach fails because of the small number of samples at end-points, and the slope of the line reflecting these last few samples may not be meaningful.

The value of 25 ppm can be taken as a threshold value, and the higher 40% of the samples can be further evaluated by establishing a geometric progression with 25 ppm, and considering these samples.

Accordingly, on Map 4, the soil copper content has been contoured at 50, 100 and 200 ppm. Two principal anomalous areas - one west of Desmond Lake and the other southeast of the lake - and several linear chains of anomalous samples can be outlined in this way.

Pyritic volcanic rocks with trace amounts of chalcopyrite have been observed at the south end of the Central Anomaly (i.e. the anomaly west of the lake) but no causative materials were noted in proximity to the Southeast Anomaly. The north-west trending chains of anomalous samples likely reflect mineralized shears, such as that described on the Dupont Prospect at Homfray Lake.

The Central and Southeast anomalies, although somewhat irregular, are attractive exploration targets because of their size. If one considers the immobility of copper ions in limy soils and the masking effect the Desmond soils could have on copper, it becomes necessary to upgrade the significance of the two anomalies to remain conservative. Because of this, the two main anomalies require and justify further definitive work. If a degree of success is achieved, some of the other smaller anomalies would then warrant additional exploration work.

AEROMAGNETICS

An intriguing aspect of the Des Group is its proximity to the intersection of five regional aeromagnetic lineaments which are known to be authentic regional geological features, and which are thought to have originated at the time of emplacement of Guichon Creek Batholith. The Valley and South Bethsaida Lineaments (NZ and SZ lineaments respectively) form north and south boundaries of the Bethsaida Quartz monzonite, and of course, the former lineament is economically important. Greenstone Lineament links two monzo-dioritic stocks, both with some associated copper mineralization, and Tunkwa lineament (or fractures sympathetic with it) contain copper mineralization at Homfray Lakes. The soil copper analyses indicate that this lineament is cupriferous on Des Claims as well. Another lineament between Tunkwa and Greenstone lineaments (marked T on Map 5212 G) is subparallel with the eastern contact of Guichon Creek Batholith and can be projected north-northwesterly through the Tunkwa Lake mercury showing.

The possible economic significance of these several lineaments is readily apparent as is the areas of their intersections.

GEOLOGICAL, SOIL COPPER AND AEROMAG LINEAMENT CORRELATIONS

The Central soil copper anomaly on DES GROUP lies along T lineament, and intrusive diorite with a pyritic halo containing trace chalcopyrite is exposed near the intersection of lineaments SZ and T.

And regarding Aeromagnetics: *“An intriguing aspect of the Des Group is its proximity to the intersection of five regional aeromagnetic lineaments which are known to be authentic regional geological features, and which are thought to have originated at the time of emplacement of Guichon Creek Batholith. The Valley and South Bethsaida Lineaments (NZ and SZ lineaments, respectively) form north and south boundaries of the Bethsaida Quartz Monzonite and, of course, the former lineament is economically important. Greenstone Lineament links two monzodioritic stocks, both with some associated copper mineralization, and Tunkwa lineament (or fractures sympathetic with it) contain copper mineralization at Homfray Lakes. The soil copper analyses indicate that this lineament is cupriferous on Des Claims as well. Another lineament between Tunkwa and Greenstone lineaments (marked T on Map 5212 G) is subparallel with the eastern contact of Guichon Creek Batholith and can be projected north-northwesterly through the Tunkwa Lake mercury showing.”*

In a private report on the local geology of the former DES Claim (immediately south of the current SED Mineral Claim), Sookochoff (1976) stated the property was *“... underlain by a variety of Nicola volcanic rock types from moderately to intensely metamorphosed with occasional recrystallization. Rock types consisted of black amygdaloidal basalt, ... grey green fine-grained andesites trending northerly ... and steeply dipping. The volcanics, chloritized to various degrees generally contain either calcite stringers or splashes of calcite on fractures and are locally epidotized”*. (MacQuarrie 1981). Therefore, despite limited outcrop described for the area, there is evidence of alteration (chlorite, epidote and calcite) in association with anomalous surface geochemistry. Similarly, *“... volcanics include green to greenish grey andesites, black amygdaloidal basalt flows, and locally tuffs and volcanic breccia. In localities the rock is porphyritic. Fracturing is quite intense and widespread evidence of hydrothermal activity was noted. The most common alteration products are epidote, chlorite and hematite, and locally stockworks of quartz veinlets were observed. The most intense alterations were noted south of Desmond Lake on the (former) Nada 4 claims, where original rock was almost completely decomposed into chloritized clay, along strong, north/northwest striking fracture system”* (Cukor 1983).”

From AR36082: Submitted for BALTO RESOURCES LTD., Rick Walker, P.Geol., Dynamic Exploration Ltd., January 31, 2016.

The portion of the aeromagnetic map covering the Balto Claim Group has been plotted in Fig. XX, with the corresponding local low (blue - described above) and high (red) areas underlying tenures 392163 and 1039696 highlighted. Of possible significance is that the northwest orientation of the aeromagnetic low is consistent with, and sub-parallel to, the two VLF-EM linears “B” and “D”. Furthermore, several other magnetic features (i.e. immediately north of linear H has a north-northeast - south-southwest trend similar to linear “C” and subparallel to linear “F”.

The presence of the prominent, NE-SW oriented magnetic low attracted early attention in the area, particularly with respect to the association with known MINFILE occurrences (i.e. PLUG and MEADOW CREEK – see “Property Geology”). Subsequent, although limited, magnetic surveys failed to confirm the original anomaly, however, being relatively small surveys they may have been located within the anomaly itself. Figure 7 (Following Page) – Geological Survey of Canada airborne geophysical map (5212G – Mamit Lake) with local high (red) and low (blue) highlighted. VLF-EM linears in yellow. See Fig. 12 this report.

And “Previous work emphasized the presence of a prominent aeromagnetic low (Geological Survey of Canada 1967) extending northeast from the current SED Mineral Claims (Fig. XX).

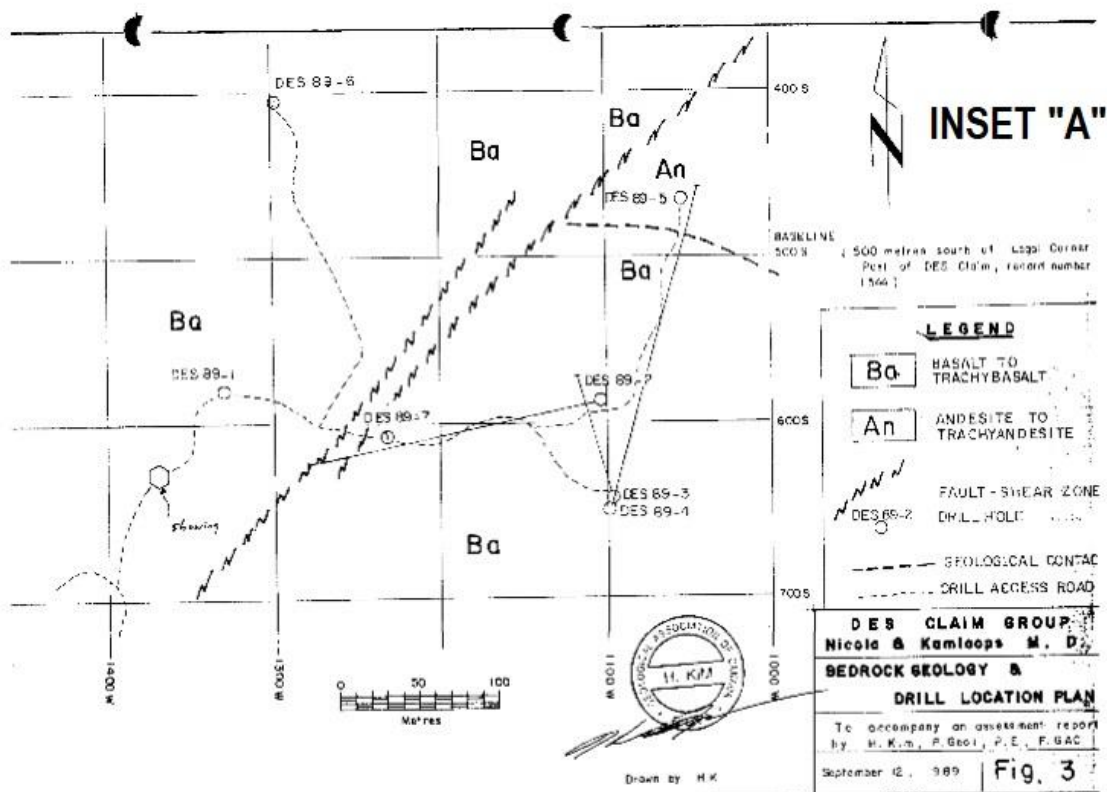
“The former NADA Property, immediately north of, and partially overlapping, the SED Mineral Claim, was acquired to “... cover a large airborne magnetic low area” (Cukor 1982), showing a

“... strong northwest/southeast lineament, which roughly coincides in trend and position with the outline of geochemical soil anomalies” (Cukor 1983).

“The broad airborne magnetic low could be easily interpreted as being caused by a small granitic intrusion underlying (sic.) the Nicola Volcanics rather close to the surface. The existence of a small Monzonite plug immediately south of the property as well as evidence of widespread and intense hydrothermal activity further substantiate this theory. Since the small intrusive bodies elsewhere in the Nicola Belt were found to be associated with important copper molybdenum mineralization the property is more than a fair exploration target” (Cukor 1982).

From **Kim, H. P Geol.**, Sept. 12, 1989, Assessment Report, Diamond Drilling, DES Claims. C. Boitard, AR 19140

Figure 10 Local Geology Inset “A”



All Within Tenure 1064715

From AR 19140

Figure 11 Local Geology Inset "A" – "OC" and "New Showing"

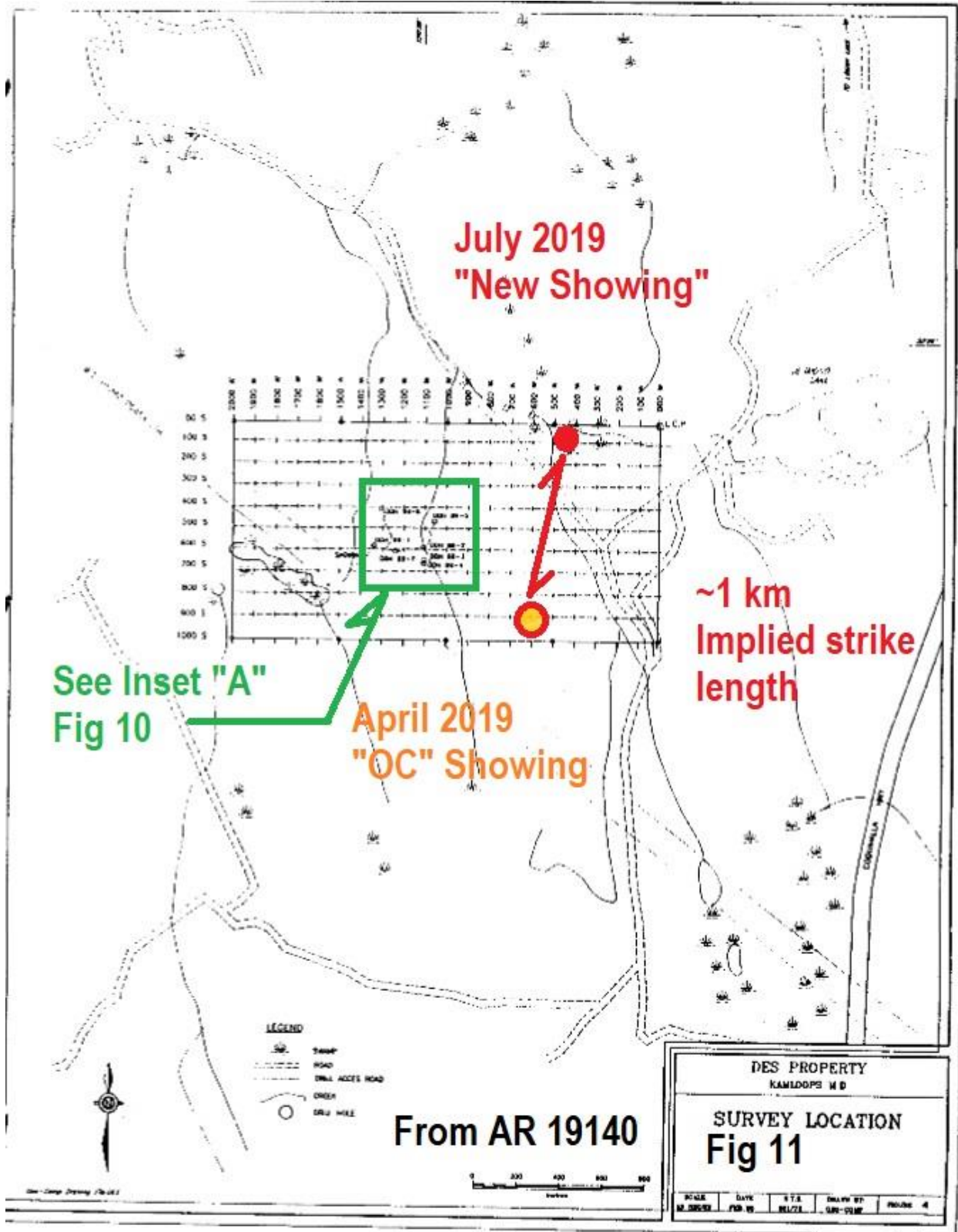
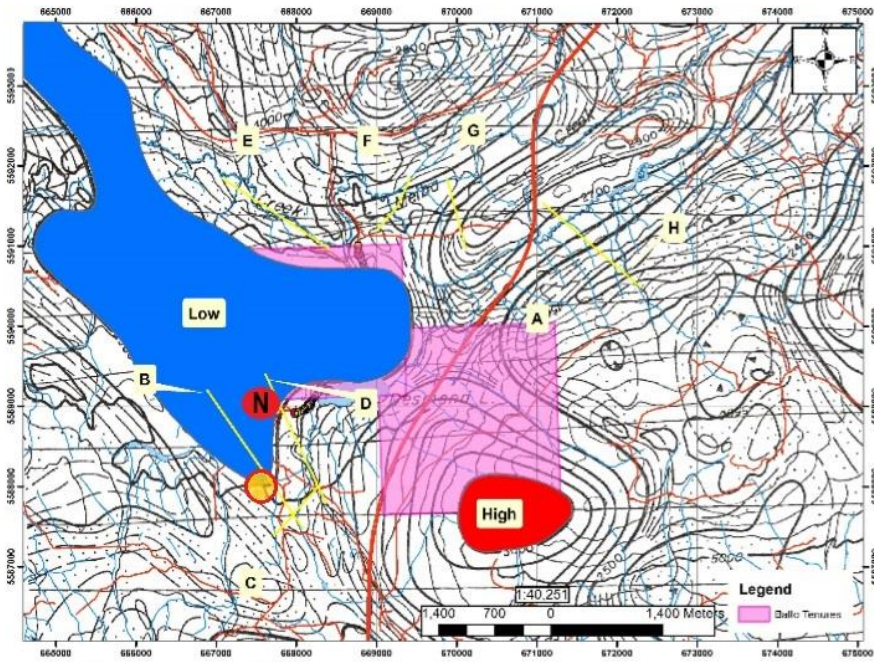


Figure 12 Local Geophysical versus "OC and "New Showing"

Dynamic Exploration Ltd.



"OC" **N** New Showing Within Tenure 1064715 **Fig. 12**

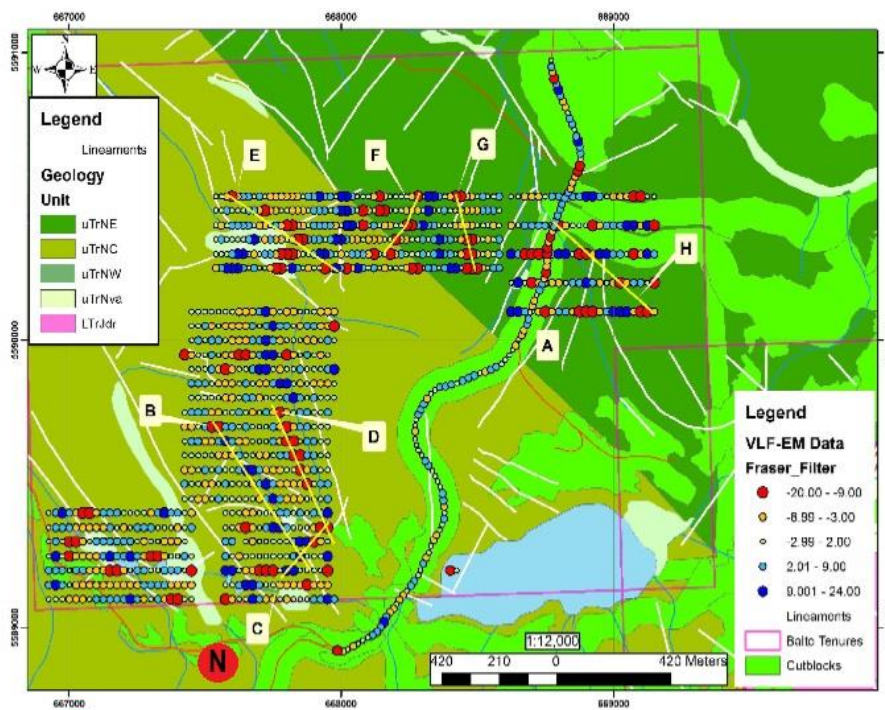
37

Ballo Resources Ltd
Assessment Report

From
AR36082

January 31, 2016

Dynamic Exploration Ltd.



N New Showing **Fig. 12**

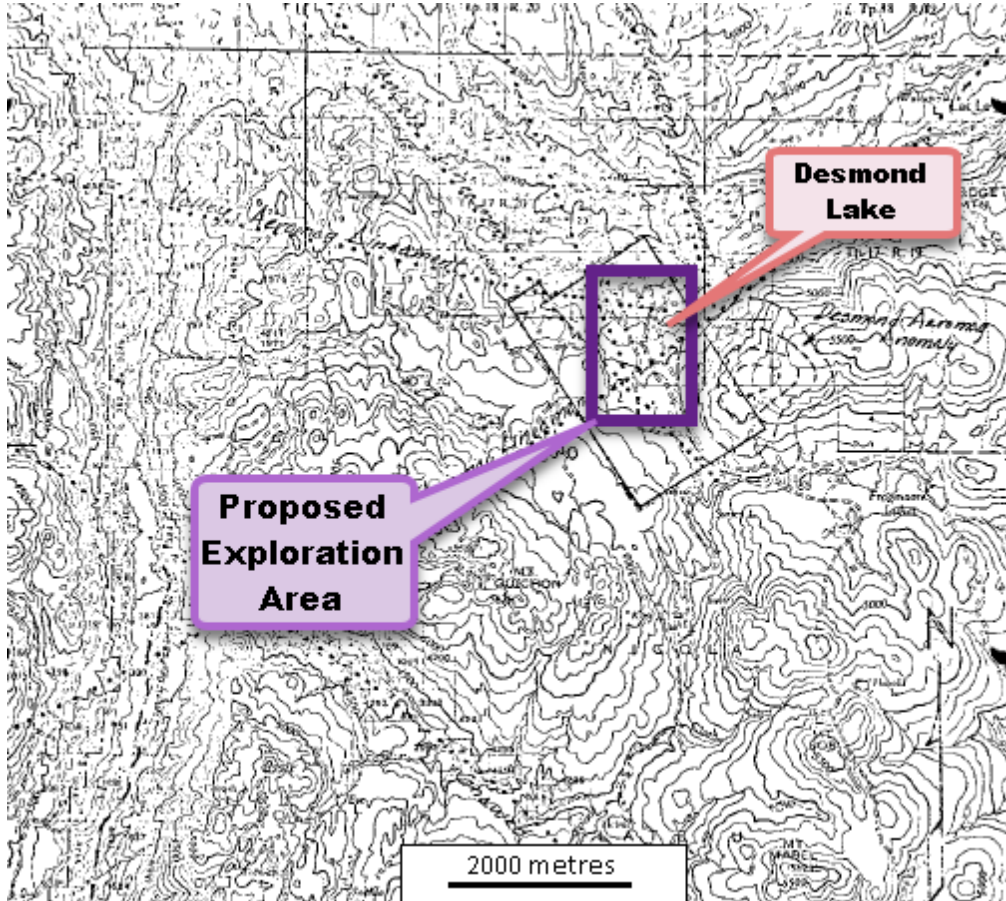
35

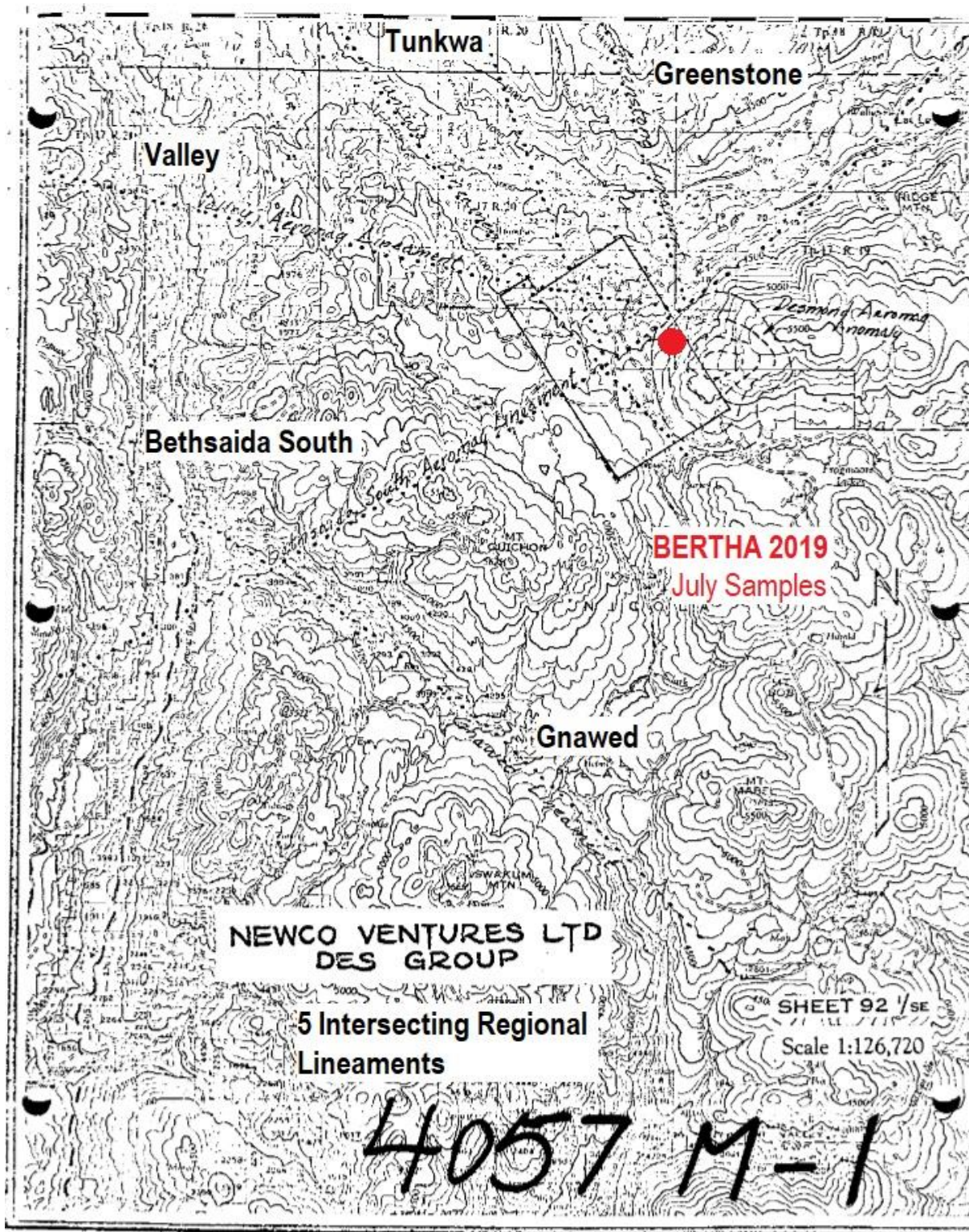
Ballo Resources Ltd
Assessment Report

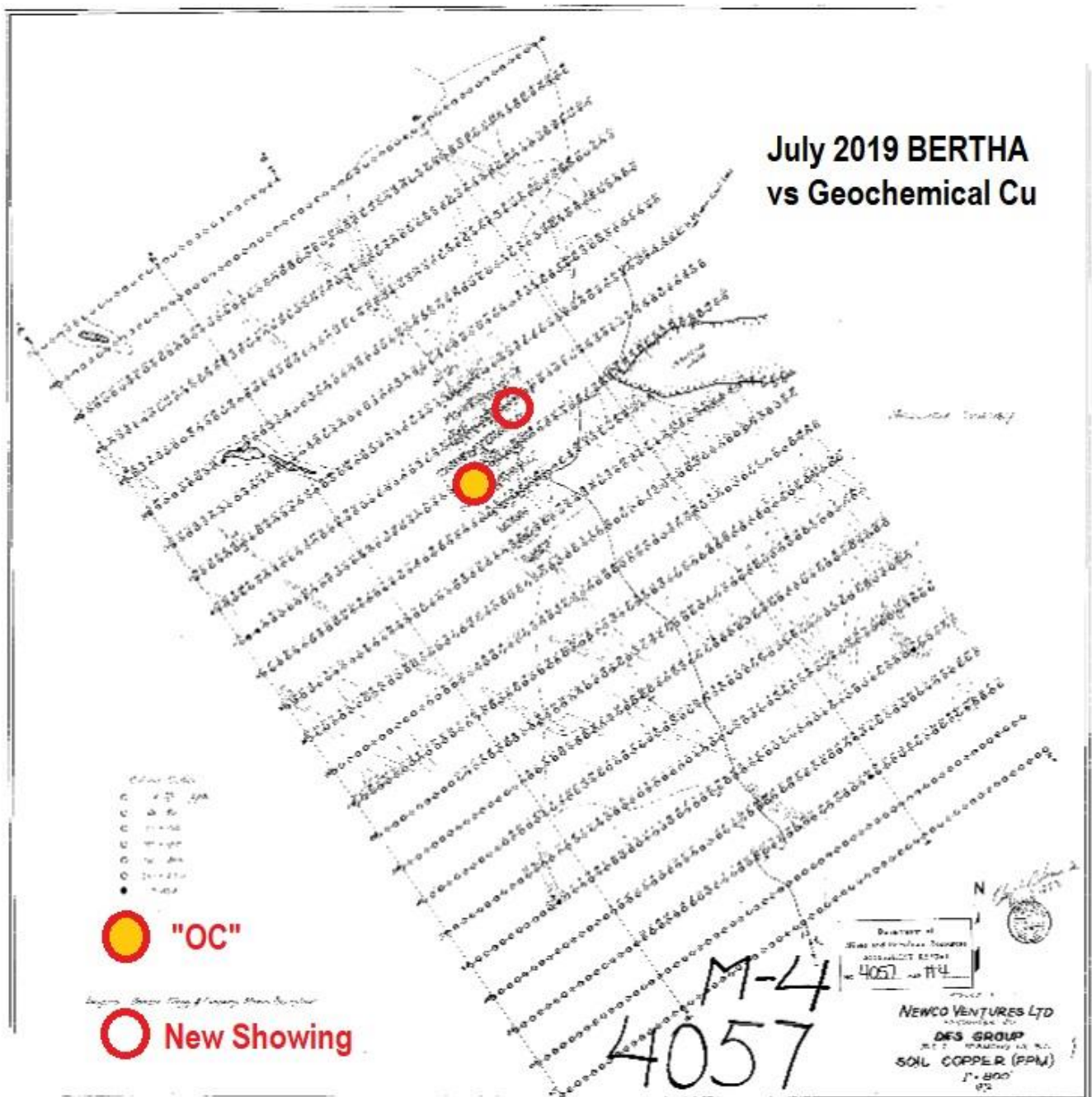
AR36082

Figure 7 – Compilation map (above) with lineaments (white) identified by Soekadorff (2015, 2003).

January 31, 2016







5.2 Conclusions

The rock exposure seen and sampled in July 2019 appear to be similar to those reported to date in April 2019 assessment reports for ground contained within the current BERTHA Claim Group. The assays obtained from July 2019 sampling showed elevated amounts of Cu, Cr, Co in rocks located in the BERTHA Claim Group and confirms rock types and minerals reported in previous AR's to be present within the current BERTHA Claim Group. Elevated Cu was found in both the siliceous "rhyolite" and the amygdoidal basalt. The July 2019 sample locations coincide with 1972 Cu geochemical anomaly (AR 4057 Lammle).

*The references made regarding MINFILE occurrences in the following quoted reference material (Walker 2016) are to MINFILE occurrences contained within the current BERTHA Claim Group.

From *BALTO RESOURCES LTD., Rick Walker, P.Geol., Dynamic Exploration Ltd., January 31, 2016. "Given the rich metal (copper-molybdenum) endowment in the Highland Valley and, more specifically, associated with intrusions (i.e. the Guichon Batholith), the presence of MINFILE occurrences in the immediate area, together with reported anomalous copper surface geochemical results and VLF-EM conductors, are interpreted to suggest further work on the BERTHA Claim Group is warranted.*

Compilation of the results from previous VLF-EM surveys on the SED Mineral Claim (immediately North) facilitated interpretation of the results with respect to the mapped geology (Monger and McMillan 2010) and the aeromagnetic map for the area (Geological Survey of Canada 1967). The area within, and surrounding the Balto Claim Group SED), has evidence of mineralization in the form of documented MINFILE occurrences and surface soil and rock geochemical results. Mapping of sparse outcrops report to the immediate north is "... underlain by a variety of Nicola volcanic rock types from moderately to intensely metamorphosed with occasional recrystallization. Rock types consisted of black amygdaloidal basalt, ... grey green fine-grained andesites trending northerly ... and steeply dipping. The volcanics, chloritized to various degrees generally contain either calcite stringers or splashes of calcite on fractures and are locally epidotized" (MacQuarrie 1981).

Similarly, to the immediate south, "... volcanics include green to greenish grey andesites, black amygdaloidal basalt flows, and locally tuffs and volcanic breccia. In localities the rock is porphyritic. Fracturing is quite intense and widespread evidence of hydrothermal activity was noted. The most common alteration products are epidote, chlorite and hematite, and locally stockworks of quartz veinlets were observed. The most intense alterations were noted south of Desmond Lake ..., where original rock was almost completely decomposed into chloritized clay, along strong, north/northwest striking fracture system" (Cukor 1983).

"The adjoining property includes the Plug mineral zone underlain by altered lapilli tuff, minor lenses of limey sediments and chlorite schist, with the Meadow Creek mineral zone underlain by chlorite-mica-feldspar schist and a highly pyritic quartz-feldspar porphyry. Historic exploration on the Plug (Minfile 092ISE196) showing included grab samples from a weak to moderate zone of carbonate-quartz-mariposite alteration over several hundred metres which yielded up to 7,500 ppb gold (0.282 oz/ton). Historic exploration on the Meadow Creek (Minfile 092ISE155) outlined a number of weak to moderate gold geochemical anomalies with values of up to 700 ppb gold (Sookochoff 2015).

The cumulative results of 11 years of small VLF-EM surveys, preferentially undertaken in the southwest portion of the SED Mineral Claim, and predominantly completed to fulfill assessment requirements, have delineated a number of linears, interpreted to be possible sub-surface conductors, which appear to be spatially associated with the mapped geology and/or aeromagnetic anomalies. The presence of an Eocene Granodioritic intrusion immediately to the east, the Nicola Batholith, is expected to have acted as a local heat source driving hydrothermal activity. A previous operator interpreted the aeromagnetic low "... as being caused by a small granitic intrusion underlying (sic.) the Nicola Volcanics rather close to the surface. The existence of a small monzonite plug immediately south of the property as well as evidence of widespread and intense hydrothermal activity further substantiate this theory. Since the small intrusive bodies

*elsewhere in the Nicola Belt were found to be associated with important copper molybdenum mineralization the property is more than a fair exploration target” (Cukor 1982).
Given the rich metal (copper-molybdenum) endowment in the Highland Valley and, more specifically, associated with intrusions (i.e. the Guichon Batholith), the presence of MINFILE occurrences in the immediate area, together with anomalous copper ± gold mineralization surface geochemical results and VLF-EM conductors, are interpreted to suggest further work on the Balto Claim Group is warranted.”*

6. Summary and Recommendations

6.1 Summary

No Elevated levels of Au were found in the samples;

Slightly Elevated levels of Ag were found in sample Bertha 19-4;

Elevated levels of Cu were found in all samples – in siliceous “rhyolite and amygdoidal basalt;

Elevated levels of Co and Cr were found in all samples.

Elevated levels of Zn were found in all samples.

The reported mineralization in the BERTHA Claim Group noted in historic ARIS references was confirmed against field encountered rock outcroppings sampled.

Newly discovered unrecorded showings appear to be of similar rock type and mineralization compared to the previously reported grab samples.

The showings (New Showing) sampled appear to be on strike with the veins/showings reported on in April 2019 (“OC”) and the conclusion made is that there may be a 1 km veins/showing system within the BERTHA Claim Group that may contain copper mineralization and that lies within the recorded 1972 Cu soil anomaly (Lammle AR4057).

The BERTHA Claim Group contains the Past Producer BERTHA and is geologically conducive to hosting mineral bearing rock, and mineralization has been confirmed by the assays of selected rock grab samples during the July 2019 prospecting program conducted by the Author/Owner.

Therefore it is strongly recommended by the Author that a comprehensive prospecting plan be created and executed in the field as soon as practical in order to confirm and map the extent of the Quartz Veining / Alteration Zone (“OC” to New Showing) and to confirm and map the extent of that geology type within the BERTHA Claim Group and its relationship to historic geochemical and aeromagnetic features.

*From: Sookochoff Consultants Inc. for KEN ELLERBECK
TECHNICAL REPORT ON THE BERTHA PROPERTY, KAMLOOPS MINING DISTRICT,
BRITISH COLUMBIA, CANADA. NI 43-101 Report;*

- a 640 metre long copper-in-soil anomaly *(area appears to hold the “OC” and “New Showing”);
- five intersecting regional lineaments resulting in an indicated cross-structure; (near “OC”/NEW)
- a large surface area of carbonate with pyrite alteration which is also revealed in one of the seven diamond-drill holes; (DES AR 19140 near “OC” and New Showing)
- massive sulphide mineralization discovered in a road cut. (DES AR 19140 “OC” area)

6.2 Recommendations

The basis for the Writer's recommendations are from researching historic exploration and subsequent exploration within the BERTHA Claim Group by others and the Writer, including the July 2019 prospecting program.

Specific Recommendations:

- Locate and sample rock from trenches and showings reported to be within the claim group;
 - Prospect for additional unreported outcrop within the BERTHA Group;
 - Trace the geology of the "OC" showing to the "New Showing" area (1 km) and sample rock;
 - Locate (if possible) and examine the drill core from historic drilling exploration programs.
- re-sample in 2020 an historic 640 metre long copper-in-soil anomaly;
 - conduct VLF-Mag and IP program in area of five intersecting regional lineaments resulting in an indicated cross-structure;
 - conduct prospecting program in 2020 over a large surface area containing carbonate with pyrite alteration which is also revealed in one of the seven diamond-drill holes in DES tenure;
 - locate, sample, find extension of massive sulphide mineralization discovered in a road cut on DES tenure historic diamond drilling.

7. Itemized Cost Statement

Exploration Work type	DES-PLUG-MEADOW	Days			Totals
PROSPECTING & EXPLORATION					
Personnel (Name)* / Position	Field Days (list actual days)	Days	Rate	Subtotal*	
Ken Ellerbeck / Owner	July 13, 2019	1	\$500.00	\$500.00	
Q. Ellerbeck / Helper	July 13, 2019	1	\$250.00	\$250.00	
		0	\$500.00	\$0.00	
		0	\$250.00	\$0.00	
			\$500.00	\$0.00	
			\$250.00	\$0.00	
				\$750.00	\$750.00
Office Studies	List Personnel (note-Office only, do not include field days)				
Literature search	Ken Ellerbeck	1.0	\$500.00	\$500.00	
Database compilation	Ken Ellerbeck	0.5	\$500.00	\$250.00	
General research	Ken Ellerbeck	0.5	\$500.00	\$250.00	
Report preparation	Ken Ellerbeck	1.0	\$500.00	\$500.00	
Other (specify)				\$0.00	
				\$1,500.00	\$1,500.00
Ground Exploration Surveys	Area in Hectares/List Personnel				
Prospect	see Personnel Field Days				
Underground					
Trenches				\$0.00	\$0.00
Geochemical Surveying	Number of Samples		No.	Rate	Subtotal
Soil	ALS MINERALS Vancouver		0.0	\$49.46	\$0.00
Rock	ALS MINERALS Vancouver		4.0	\$48.00	\$192.00
					\$192.00
					\$192.00
Transportation		No.	Rate	Subtotal	
KM Kamloops-Property-return	1 DAYS RETURN TRIPS	133.00	\$0.95	\$126.35	
KM SAMPLES TO LAB	January 15, 2020	51.00	\$0.95	\$48.45	
				\$0.00	
				\$174.80	\$174.80
Accommodation & Food	Rates per day				
Hotel			\$0.00	\$0.00	
Camp			\$0.00	\$0.00	
Meals	2 man-days @\$40/day	2.00	\$40.00	\$80.00	
				\$80.00	\$80.00
Miscellaneous					
Telephone			\$0.00	\$0.00	
Other (Specify)					
				\$0.00	\$0.00
Equipment Rentals					
Field Gear (Specify)			\$0.00	\$0.00	
Other (Specify)					
				\$0.00	\$0.00
Freight, rock samples					
			\$0.00	\$0.00	
			\$0.00	\$0.00	
				\$0.00	\$0.00
TOTAL Expenditures					\$2,696.80

8. Statement of Qualifications

STATEMENT OF AUTHOR'S QUALIFICATIONS

KENNETH C. ELLERBECK, PMP

I hold a BSc in Mechanical Engineering, University of Alberta, Edmonton, 1973.

I have completed University level introductory geology courses.

I hold a Certificate in Project Management from University of British Columbia, Sauder School of Business, 2010.

I hold a Project Management Professional designation – PMP – 1391810 – 2011.

I have been actively involved in all aspects of mineral exploration since 1980 in the Province of British Columbia.

I have managed staking and exploration programs since 1980 on my own mineral tenures as well as for tenures held by both private and publicly-held junior exploration companies.

My mineral exploration experience includes staking, prospecting, trenching, trench mapping, line cutting and grid construction, geochemical surveys, geophysical surveys, diamond drilling supervision and general exploration program supervision.

SIGNED



KENNETH C. ELLERBECK

9. Selected References

BC Geological Survey, MEMPR, MINFILE : 092ISE155 PLUG-MEADOW CREEK
British Columbia Survey Branch, The Map Place.
MtOnline - MINFILE downloads
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LIST OF SOFTWARE PROGRAMS USED

ADOBE PHOTOSHOP 7.0
PAINT for WINDOWS
ARIS MAPBUILDER – Map Data downloads
Imap BC – Map Data downloads
MtOnline - MINFILE downloads.

APPENDIX A: Sample Preparation and Method of Analysis



ALS Canada Ltd.
 2103 Dollarton Hwy
 North Vancouver BC V7H 0A7
 Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218
 www.alsglobal.com/geochemistry

TO: KEN ELLERBECK
 255 WEST BATTLE STREET
 KAMLOOPS BC V2C 1G8

Page: 1
 Total # Pages: 2 (A - C)
 Plus Appendix Pages
 Finalized Date: 25-JAN-2020
 Account: ELLERK

CERTIFICATE KL20008594

Project: Bertha

This report is for 4 Rock samples submitted to our lab in Kamloops, BC, Canada on 10-JAN-2020.

The following have access to data associated with this certificate:
 KEN ELLERBECK

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
CRU-QC	Crushing QC Test
PUL-QC	Pulverizing QC Test
CRU-31	Fine crushing - 70% <2mm
SPL-21	Split sample - riffle splitter
PUL-31	Pulverize up to 250g 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-ICP41	35 Element Aqua Regia ICP-AES	ICP-AES
Au-AA23	Au 30g FA-AA finish	AAS

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.
 ***** See Appendix Page for comments regarding this certificate *****

Signature: 
 Saa Traxler, General Manager, North Vancouver



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 KAMLOOPS BC V2C 1G8

Page: Appendix 1
 Total # Appendix Pages: 1
 Finalized Date: 25-JAN-2020
 Account: ELLERK

Project: Bertha

CERTIFICATE OF ANALYSIS KL20008594

CERTIFICATE COMMENTS	
	LABORATORY ADDRESSES
Applies to Method:	Processed at ALS Kamloops located at 2953 Shuswap Drive, Kamloops, BC, Canada. CRU-31 CRU-QC LOG-22 PUL-31 PUL-QC SPL-21 WEI-21
Applies to Method:	Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada. Au-AA23 ME-ICP41



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Page: 2 - A
 Total # Pages: 2 (A - C)
 Plus Appendix Pages
 Finalized Date: 25-JAN-2020
 Account: ELLERK

Project: Bertha

CERTIFICATE OF ANALYSIS KL20008594

Sample Description	Method Analyte Units LOD	WEI-21	Au-AA23	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
		Recvd Wt. kg	Au ppm	Ag ppm	Al %	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %
		0.02	0.005	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
Bertha-19-1		0.72	<0.005	<0.2	2.56	2	<10	10	<0.5	<2	3.52	<0.5	25	114	39	3.99
Bertha-19-2		1.74	<0.005	<0.2	2.78	3	<10	20	<0.5	<2	1.22	<0.5	28	96	36	4.38
Bertha-19-3		0.81	<0.005	<0.2	2.41	4	<10	20	<0.5	<2	1.05	<0.5	26	94	41	3.62
Bertha-19-4		1.28	<0.005	0.3	2.34	6	<10	20	<0.5	<2	6.91	0.6	31	112	110	6.30

***** See Appendix Page for comments regarding this certificate *****



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Page: 2 - B
 Total # Pages: 2 (A - C)
 Plus Appendix Pages
 Finalized Date: 25-JAN-2020
 Account: ELLERK

Project: Bertha

CERTIFICATE OF ANALYSIS KL20008594

Sample Description	Method Analyte Units LOD	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	
		Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Sr ppm
Bertha-19-1		10	<1	0.01	<10	3.07	746	<1	0.03	72	500	<2	0.03	<2	9	31
Bertha-19-2		10	<1	0.02	<10	3.23	630	<1	0.05	77	590	2	0.01	<2	10	32
Bertha-19-3		10	<1	0.01	<10	2.77	581	<1	0.04	74	610	<2	0.01	<2	9	37
Bertha-19-4		10	<1	0.06	<10	2.24	989	<1	0.04	58	680	<2	<0.01	<2	14	49

***** See Appendix Page for comments regarding this certificate *****



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 KAMLOOPS BC V2C 1G8

Page: 2 - C
 Total # Pages: 2 (A - C)
 Plus Appendix Pages
 Finalized Date: 25-JAN-2020
 Account: ELLERK

Project: Bertha

CERTIFICATE OF ANALYSIS KL20008594

Sample Description	Method Analyte Units LOD	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
		Th ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm
		20	0.01	10	10	1	10
Bertha-19-1		<20	0.31	<10	<10	112	<10
Bertha-19-2		<20	0.36	<10	<10	133	<10
Bertha-19-3		<20	0.34	<10	<10	108	<10
Bertha-19-4		<20	0.34	<10	<10	185	<10

***** See Appendix Page for comments regarding this certificate *****

APPENDIX C: Filing Proof

1/7/2020



Print and Close

Cancel

Mineral Titles Online

Mineral Claim Exploration and Development Work/Expiry Date Change

Confirmation

Recorder: ELLERBECK, KENNETH
CECIL (107608)
Recorded: 2020/JAN/07
D/E Date: 2020/JAN/07

Submitter: ELLERBECK, KENNETH
CECIL (107608)
Effective: 2020/JAN/07

Confirmation

If you have not yet submitted your report for this work program, your technical work report is due in 90 days. The Exploration and Development Work/Expiry Date Change event number is required with your report submission. **Please attach a copy of this confirmation page to your report.** Contact Mineral Titles Branch for more information.

Event Number: 5769774

Work Type: Technical Work
Technical Items: Prospecting

Work Start Date: 2019/JUL/13
Work Stop Date: 2019/JUL/13
Total Value of Work: \$ 2696.80
Mine Permit No:

Summary of the work value:

Title Number	Claim Name/Property	Issue Date	Good To Date	New Good To Date	# of Days Forward	Area in Ha	Applied Work Value	Sub- mission Fee
1039697	MEADOW-PLUG	2015/NOV/02	2020/DEC/01	2021/APR/13	133	123.48	\$ 674.91	\$ 0.00
1039713	PLUG IT	2015/NOV/02	2020/DEC/01	2021/APR/13	133	82.31	\$ 449.88	\$ 0.00
1049929	PLUG NORTH	2017/FEB/10	2020/DEC/01	2021/APR/13	133	61.73	\$ 224.60	\$ 0.00
1064406	RHYOLITE HOMFRAY	2018/NOV/10	2021/MAR/31	2021/APR/13	13	411.49	\$ 73.28	\$ 0.00
1064715	DES	2018/NOV/26	2020/DEC/01	2021/APR/13	133	164.70	\$ 300.06	\$ 0.00
1064900	DES-PLUG	2018/DEC/04	2020/DEC/01	2021/APR/13	133	205.78	\$ 374.90	\$ 0.00
1066816		2019/FEB/25	2021/MAR/31	2021/APR/13	13	226.39	\$ 80.63	\$ 0.00
1067470	HELLO MOLLY	2019/MAR/27	2021/MAR/31	2021/APR/13	13	61.75	\$ 11.00	\$ 0.00
1069575	BERTHA DES	2019/JUL/10	2020/JUL/10	2021/APR/13	277	123.50	\$ 468.61	\$ 0.00

Financial Summary:

Total applied work value:\$ 2657.87

PAC name: KEN ELLERBECK
Debited PAC amount: \$ 0.0
Credited PAC amount: \$ 38.93

Total Submission Fees: \$ 0.0

Total Paid: \$ 0.0

Please print this page for your records.

The event was successfully saved.

Click [here](#) to return to the Main Menu.

1/1